THE

JOURNAL OF GAS LIGHTING.

PUBLISHED MONTHLY.

No. 35, Vol. II.] LONDON, DECEMBER 10, 1851. [Price 1s., In America 35 Cents.

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NOTICE TO AMERICAN READERS.

Complete series of the Journal may be had of Messrs. D. Appleton and Co., 200, Broadway, New York, to whom all subscriptions for the United States, after the 10th of January, 1851, must be paid.

NOTICES.

The subscription is 10s. per annum if paid in advance, or 12s. on credit, payable in two sums of 6s. each, due in June and December of each year. All subscriptions commence from the 10th of January.

All communications and orders for Advertisements to be addressed to the Editor, 32, Bucklersbury, London.

Back numbers exceeding three months' date will in future be charged double price, unless six or more consecutive numbers are taken at the same time. Nos. 6, 15, 18, and 23 are out of print.

The Editor will be particularly obliged by his friends forwarding to him Notices of all Meetings, Trials, or Appeals which it may be interesting to the Gas World to have reported.

Circular to Gas Companies.

The Editor may be consulted on all subjects connected with the supply and manufacture of gas, or the alteration and improvement of gas apparatus, and the construction of new works.

The important manufacturing town of Sheffield is now undergoing its ordeal of agitation for low-priced gas, and in the course of it a question of considerable importance has been raised, upon the issue of which the fate of the movement at present hangs. The facts are briefly these :—

The streets, lanes, roads, and footpaths of Sheffield are under the exclusive jurisdiction of trustees, appointed in virtue of the 5th & 6th William IV., cap. 50, commonly known as the General Highway Act. The powers of these trustees extend merely to the surface of the thoroughfares, and confer no authority whatever for any disturbance of that surface beyond what is necessary for the ordinary repairs. Unlike the Commissioners of Sewers of the City of London, who are the freeholders of the soil forming the public highways, trustees under the General Highway Act have no power to permit the construction of even a sewer, or any other works below the surface; and any one doing so without sufficient authority is, of course, in law, a trespasser, and must give way to those legally authorised and in possession of the right.

Two corporate bodies are in existence in Sheffield, empowered by Parliament to lay pipes below the surface, viz :—the water and the gas companies. For some years, two gas companies held the concurrent right, but, after a severe and ruinous competition between them, an amalgamation took place, and a moderate dividend has of late been paid upon their united capitals. It was therefore not to be expected that the reductions in the price of gas should keep pace with those made in other towns, in which only one capital had been invested; and a third gas company has been projected, based on a maximum price of 3s. per 1000 feet. Having, however, a wholesome dread of the sifting which such a scheme must undergo before a Parliamentary committee, its promoters have not dared to give the requisite notices to enable them to apply for an act in the ensuing session, but seem to rely upon some means being devised by which they may be otherwise empowered to lay their pipes. Under these circumstances, the opinion of counsel has been obtained by the United Company, and it has been given in the following terms :—

"Questions submitted by the Sheffield United Gaslight Company to the Attorney and Solicitor-General and Mr. Wm. Overend; and their replies thereto.

"Q.—Have the boards for the repairs of the highways of the various townships in the parish of Sheffield, ANY power to grant the projected Sheffield Gas Consumers' Company permission to lay their mains or pipes in the highways or public streets?

"A.—We are CLEARLY of opinion that the boards for the repairs of the highways have NO SUCH POWER.

"Q.—Whether, under the deed for the constitution of the proposed company, any *binding* clauses, as between the company and the public, can be inserted for insuring all or any of the following matters :—

"The appointment, by the directors, of inspectors of gas meters and auditor of accounts, subject to the approval of the town council of Sheffield:

"For limiting the price of gas to 3s. per 1000 cubic feet:

"To prevent the possibility of an amalgamation of the company with any existing company:

"To empower the town council of Sheffield to purchase the stock, plant, apparatus, and mains of the company, at a fair valuation:

"To compel the company to sell to the said town council, supposing the latter body were disposed to purchase, and enabled to do so:

"To ensure that meters and ordinary service pipes shall, in all cases, be supplied to the consumers free of charge:

"To prevent the company from dividing a larger dividend than 7½ per cent.:

"To ensure a uniform charge for gas to all consumers?

"A.—We are of opinion that no such provisions as are here suggested could be inserted in any deed which would be binding as between the company and the public, and that it would be competent for the shareholders, at any time hereafter, by a new or supplementary deed, to vary the provisions contained in the original deed of settlement.

(Signed) "A. J. E. Cockburn.
W. P. Wood.
"13th November, 1851." William Overend.

We understand an opinion has been taken by the promoters of the new company upon the first of these questions, and the answer entirely coincides with that of the above eminent counsel, though its exact terms have not been permitted to transpire. There can therefore be no doubt that, in the event of any pipes being laid in virtue of any authority from the Highway Board exclusively, the Gas and Water Company would be justified in removing them, whenever they may come in contact with their own pipes, or interfere with the full enjoyment of the rights conferred upon them by Parliament; and it is, moreover, tolerably certain, that a court of equity would restrain any proceedings by parties presuming to act in a matter over which they have no legal control.

These remarks do not apply to paving commissioners or trustees created by special acts of Parliament, in most of which powers are given to authorise the laying of pipes, nor is there any obstacle to such bodies granting permission to gas companies not incorporated by special acts to lay pipes within their jurisdiction. But we wish it to be clearly understood that trustees of highways have no power whatever, under the 5th & 6th William IV., cap. 50, to authorise the breaking up of the highways for the laying of pipes, or otherwise dealing with the

soil below the surface, where other parties are in possession of the legal right to occupy it.

The Great Central Gas Consumers' Company have obtained authority from their shareholders for the exercise of their full borrowing powers, which, if carried into effect, will raise their expenditure to £216,000. Some dissatisfaction was expressed by the meeting at the peremptory manner in which the proposition came before them; and, if we are correctly informed, it is now discovered that the capital of the Amalgamated City of London and Great Central Companies will very considerably exceed the £300,000 originally spoken of; indeed, it is reported that £500,000 will be the amount Parliament will be solicited to sanction.

The *London Gazettes* of the past month have contained notices of applications intended to be made in the ensuing session of Parliament for the under-mentioned bills connected with the supply of gas in the towns named :—

Exeter Gas Consumers' Company.—Act for incorporation.
Derby Gas Company.—To extend, alter, and amend the present act, and to raise additional capital.
Mansfield Gas Company.—Ditto, ditto.
St. Helen's Gas Company.—Ditto, ditto.
Deptford Gas Light and Coke Company.—Act for incorporating the same, with power to light the parishes of St. Paul and St. Nicholas, Deptford.
Commercial Gas Company and British Gas Company.—Act to amalgamate these companies, and to form a new one, with amended and extended powers.
London Gas Company.—To extend, alter, and amend the present act, and to raise additional capital on loan, or by new shares.
Wolverhampton Gas Company.—Ditto, ditto.
City of London Gas Company and Great Central Gas Consumers' Company.—Act to amalgamate these companies, and to alter and amend existing acts.
Oxford Gas Consumers' Company.—Act for incorporation.
Rhyl Improvement.—Act to appoint commissioners, with power to purchase by agreement, or to lease, the works of the Rhyl Gas Company, and to supply gas.
Lancaster Improvement.—Act to authorise the Board of Health to purchase or lease the works of the Lancaster Gas Company, and to supply gas.
Stockton Improvement.—Act to empower the corporation to erect gas works, or purchase those of the Stockton New Gas Company or others, and to supply gas.
Wallasey Improvement.—Act to appoint commissioners with power to erect gas works, supply gas, or let the works.
Wrexham Improvement.—Act to give power to commissioners to erect gas works and supply gas, or contract for a supply.
Sheffield Improvement.—Act to empower the corporation to contract for the supply of gas, or to purchase or lease gas works, and supply gas.
Newport (Salop) Improvement.—Act to appoint commissioners, with power to purchase or lease gas works, and supply gas.
Barnsley Gas Company.—To extend, alter, and amend the present act, and to raise additional capital.
Portsea Island Gas Company.—Ditto, ditto.
Runcorn Improvement.—To enable the commissioners to lease the works of the Runcorn Gas Company, and to hold shares therein.
Rotherham and Masborough Improvement.—Act to empower commissioners to erect or purchase gas works, to supply gas, or to contract for a supply.

Communicated Articles.

THE CHEMISTRY OF GAS LIGHTING.

(*Continued from page* 203.)

In resuming our analytical investigation into the different kinds of coal used in the production of gas, it becomes necessary to offer a few remarks regarding the nature of those decompositions which take place in the distillation of coal, and give rise to the impurities of coal gas. Hitherto our labours have been confined to cannel coals, in which the greater part of the sulphur seems to exist in what may be termed a volatile state of combination, or, at least, in such a form as enables it to pass off with the volatile products in much larger quantity than happens with bituminous coals. Now, the effect of this volatile condition in determining the nature of the resulting impurities is a matter of some importance, for a careful examination of impure coal gas from cannel and from bituminous coal proves that the amount of bisulphuret of carbon, as contrasted with that of sulphuretted hydrogen, is larger in the former than in the latter, though the reverse of this is the case when the total amount of impurity is under consideration. In other words, although generally a gas from cannel coal contains less sulphur than that from bituminous coal, yet the first contains more sulphuret of carbon than the last, and hence, after purification, really possesses more sulphur in its composition. A short review of the mode in which the bisulphuret of carbon is manufactured will explain the cause of this peculiarity, and also serve to demonstrate the utility of our present efforts. When free sulphur is passed in a volatilised state over charcoal or coke heated to a full cherry red, these substances combine together, and produce bisulphuret of carbon, exactly as oxygen, under the same circumstances, in contact with carbon, produces bioxide of carbon, or carbonic acid, as it is called. In this example, the two simple substances are free or uncombined, and, therefore, at liberty to act upon each other at the lowest temperature capable of producing chemical union; hence this is the method daily adopted by those who make bisulphuret of carbon for sale. But it may also be made by distilling, at a bright white heat, a mixture of charcoal, or coke, and iron pyrites; and, if this heat be maintained for a sufficient time, the iron of the pyrites will be found converted into carburet of iron, whilst the whole of the sulphur passes off in combination with carbon, as bisulphuret of carbon.

In this way science is able to account for the seemingly absurd prolixity of the cokemakers' process, in which experience shows that the heat must be kept up for many hours, or even days, after all evolution of gaseous matter has ceased. What we have here to notice, however, is the fact that, whereas with free sulphur a red heat is sufficient for the production of bisulphuret of carbon, in the case of iron pyrites a bright white and well-sustained temperature is requisite. Now, it has been shown that, in the cannel coals previously examined, there is every reason to suppose that free sulphur exists; consequently, even at the heat needed for the production of coal gas, such coals must give off during distillation, not only sulphuretted hydrogen, but also bisulphuret of carbon, almost from the beginning to the end of the process. But with bituminous coals our present analysis shows that there is no free sulphur, for this element seems invariably united to iron, as bisulphuret of iron; therefore it is only towards the end of the charge, and when the heat verges on whiteness, that these coals afford bisulphuret of carbon; moreover, by a well-regulated heat, such coals may be made to yield a gas quite free from bisulphuret of carbon, which is not possible with most of the cannel coals. When it is remembered that the particular impurity, being once present in coal gas, cannot be got rid of by any process at present known, the circumstances connected with its production are worthy of an attentive consideration by gas engineers. Again, as regards impurity, vast importance attaches to the amount of moisture contained in the coal, and which, since it is quite accidental, must not be looked upon as a constituent of the coal; but when a large quantity of this moist coal is thrown into a retort, the outer surface, after undergoing for some time the action of the fire, is converted into coke, and the bisulphuret of iron into proto-sulphuret of iron, over which latter the steam from the interior of the mass of coal passes with, of course, the same result as if this proto-sulphuret of iron were purposely subjected at a red heat to the action of the vapour of water; that is to say, the two compounds mutually decompose each other, and give rise to oxide of iron and sulphuretted hydrogen, so that, by mismanagement of this kind, the whole of the sulphur contained in bituminous coals may be made to pass off into the gas, and thus double both the labour and expense of purification. The gas engineer, in running his eye over the quantity of sulphur which, according to the following table, is contained in the gaseous products of the various coals, will consequently understand that this applies to the case of dry coals; for, as we have stated, it is quite possible by gross folly to procure a very different result. In some of the bituminous coals an appreciable quantity of carbonate of lime is found spreading itself in thin layers between the fissures of the coal; this substance has a remarkable effect in retaining the sulphur of the coal in the coke. It may, indeed, be looked upon as lime, and in this respect produces all the good effects which that substance is capable of performing in a purifier. This carbonate of lime, by the action of the impure coal gas, resolves itself into sulphuret of calcium, whilst its carbonic acid most probably becomes carbonic oxide. To the coke-maker, therefore, the presence of carbonate of lime in coal should be an objection, but the opposite conclusion must be drawn as regards the gasmaker.

On this account, and to facilitate the application of the present tabulated statement, we have added a column showing the per centage of ash in the coke, as well as in the coal; but, as this ash in the case of bituminous coal is very trifling, and, moreover, of a singular uniformity of composition, we have merely included it amongst the general characters of the coal, instead of, as heretofore, placing the results in a separate column. It is, however, an extremely interesting inquiry to trace the connection which seems to exist between the nature of the ash and that of the coal. In cannel coal it has many of the characters of decomposed felspar, and this is so strongly marked in the instance of Boghead coal, that, if from one atom of felspar we remove one atom of bisilicate of potash, we shall have exactly the composition of the ash of Boghead coal, to which the others are all closely allied. The ash of bituminous coal is, on the contrary, chiefly silicate of lime and oxide of iron, and in such minute quantity as may easily be supposed to have existed in the plants which formed the coal itself, especially as several of these undoubtedly belonged to the equisitaceæ, a natural order distinguished by the presence of silica in their structure. Bituminous coal, then, may have resulted from the fermentation under pressure of pure or uncontaminated plants or trees of large size, whilst cannel coal has clearly in places been produced from a similar fermentation carried on amongst small plants or mosses imbedded in an alluvial detritus, caused by the action of water on felspar or granite. Nevertheless, the minute shining scales of mica, so common in gneiss and granite, have not yet, that we are aware of, been found in cannel coal ash, though the surrounding sandstone is frequently inter-

spersed with them throughout. Chemistry and geology have not thus far walked hand in hand in a kindly spirit through this extensive field of discovery.

We may now, perhaps, offer some remarks on a subject of more immediate import to ourselves, and that is, the difficulty of procuring well authenticated and yet fair average samples of coals. This has really been the most burdensome, because the least pleasing of our labours. In the list of cannel coals, recently published, we have detailed the results of Lochgelly coal, from a duly labelled, and, as we expected, genuine specimen. It was not, however, Lochgelly coal at all, but had been so denominated by mistake. The accompanying table will therefore correct this error. We have also given the results of an article called New Brunswick cannel, but which is devoid of the true character of coal, and seems to be merely a kind of mineral pitch or asphalt. Lying upon and attached to some of the bituminous coals from Newcastle, a thin band of a dense and compact coal is found, varying in thickness from three to six inches. This we have reported upon separately, under the name cannel; and it is just possible that it may have owed its origin to a stratum of moss covering the remains of an uprooted forest, for, as will be seen, the quantity of ash it yields is considerably greater than that of the coal to which it adheres. As a connecting link between these two different descriptions of coals, it is, however, extremely interesting, and not the less so from its tacit testimony in favour of the supposition that bituminous and cannel coals owe their origin to very different kinds of plants, as is indicated by the diversity of their gaseous products—a feature which will become more prominently developed at a subsequent stage of our investigations.

Name of Coal.	General Character.	Volatile Matter.	Coke.	Ash.	Sulphur in			Ash in Coke per Cent.
					Coal.	Coke.	Volatile Matter.	
Lockgelly Cannel ..	Colour, dull black, and slaty; fracture, inclining to slaty; cross fracture, irregular conchoidal; streak, shining black. On the fire, decrepitates and flies. Ash, white, with nitrate of cobalt blue, thus proving the presence of alumina. Specific gravity, 1·320.	33·5	66·5	13·1	·75	·25	·5	29·7
New Brunswick Cannel.....	Jet black, and pitchy looking; fracture, highly conchoidal and resinoid in all directions; streak, dull and pitchy. On the fire, cracks and splits, then fuses and boils up with strong intuemscence. Largely soluble in naphtha, oil of turpentine, and bisulphuret of carbon. Specific gravity, 1·098. The coke is light and friable, like that from pitch.	66·3	33·7	·6	·07	None.	·07	1·78
Pelton Main	Colour, coal black, with shining layers; fracture in both directions cubical, with their deposits of carbonate of lime, and iron pyrites in the cross fracture; streak, black and shining. On the fire opens out and fuses slightly. Ash, pale ochry yellow. Specific gravity, 1·270.	28·4	71·6	1·41	1·1	·62	·48	1·96
Pelton Main Cannel	Colour, dull black with a shade of brown; structure, compact and uniform; fracture, conchoidal and slaty; cross fracture, irregular, conchoidal, with deposits of iron pyrites; streak, black and shining. On the fire, splits, but does not fly; agglutinates and intumesces slightly. Ash, dirty white, with shade of pink; by nitrate of cobalt, black. Specific gravity, 1·320.	31·5	68·5	9·4	·95	·49	·46	13·7
Leverson's Walls-end	Colour, coal black, with shining layers; fracture, cubical, and slightly slaty; cross fracture, cubical, with thin layers of iron pyrites; streak, black and shining. On the fire opens out, and agglutinates. Ash, brick red. Specific gravity, 1·278.	34·9	65·1	4·9	1·3	·65	·65	7·52
Leverson's Walls-end Cannel	This is a dull black band, which runs through the mass of the coal; fracture, slaty, conchoidal; cross fracture, cubical and conchoidal; streak, black and shining. On the fire splits, but does not fly or fuse. Ash, dull white, with shade of pink; with nitrate of cobalt, dull black. Specific gravity, 1·320.	30·8	69·2	9·35	1·	·5	·5	13·67
Washington	Colour, coal black, with shining layers; fracture, in all directions, cubical and irregular. On the fire, opens out and fuses slightly. Streak, shining black. Ash, reddish yellow. Specific gravity, 1·260.	31·25	68·75	2·2	1·3	·67	·63	3·2
Washington Cannel	This resembles the Pelton and Leverson's bands. Colour, dull brownish black; fracture, irregular, conchoidal; cross fracture, cubical and conchoidal; streak, shining black. On the fire, splits and fuses slightly. Ash, dirty white, with shade of pink. Specific gravity, 1·326.	27·4	72·6	9·37	1·1	·56	·55	12·9
Pelaw Main	Colour, coal black, inclining to jet in variable layers; fracture, cubical in all directions, with deposits of pyritic charcoal and carbonate of lime. On the fire open out, agglutinates, and intumesces. Ash, pale fawn colour. Specific gravity, 1·271.	30·3	69·7	2·60	1·2	·7	·5	3·7
Urpeth.....	Colour, coal black, with shining layers; fracture, in all directions, cubical, with layers of carbonate of lime and iron pyrites in the cross fracture; streak, black and shining. On the fire, opens out, swells, and fuses slightly. Ash, dull ochry yellow. Specific gravity, 1·271.	28·7	71·3	1·35	1·	·6	·4	1·89
New Pelton	Colour, coal black, inclining to jet in layers; fracture, slaty and cubical; cross fracture, irregular and cubical; streak, black and shining. On the fire, opens out, fuses slightly, and intumesces. Ash, light brick red. Specific gravity, 1·265.	30·2	69·8	1·75	1·1	·56	·54	2·5
Dean's Primrose	Colour, brownish black, with shining layers; fracture, in all directions, cubical and somewhat irregular, with occasional deposits of iron pyrites. On the fire, splits, and crackles slightly, swells, and intumesces. Ash, brick red. Specific gravity, 1·261.	29·25	70·75	2·4	1·4	·71	·69	3·4
Stavely (Derbyshire).....	Colour, jet black; structure, splintry and prismatic; fracture, slaty and columnar; cross fracture, irregular and cubical, with deposits of carbonate of lime and iron pyrites; contains several black bands with charcoal; streak, black. On the fire, crackles and splits, fuses slightly. Ash, dirty pale red. Specific gravity, 1·275.	40·9	59·1	2·7	1·2	·8	·4	4·57

Name of Coal.	General Character.	Volatile Matter.	Coke.	Ash.	Sulphur in			Ash in Coke per Cent.
					Coal.	Coke.	Volatile Matter.	
Elsecar Low Pit (Yorkshire)	Colour, jet black, with dull layers; structure, laminated; fracture, slaty, inclining to cubical; cross fracture, cubical, with numerous deposits of charcoal, and traces of carbonate of lime; streak, black. On the fire, swells and fuses with some intumescence. Ash, ochry yellow. Specific gravity, 1·258.	37·	63·	1·1	1·2	·63	·57	1·74
Grigleston Cliff Soft (Yorkshire).	Colour, coal black; structure, splintery, and in layers; fracture, slaty, with bands of charcoal; cross fracture, hackley and cubical, containing traces of carbonate of lime; streak, black. On fire, alters but little, and does not fuse or decrepitate. Ash, brick red. Specific gravity, 1·255.	35·6	64·4	1·6	1·4	·75	·65	2·48
Silkston No. 1 (Yorkshire)	Colour, jet black; structure, laminated and prismatic; fracture, slaty; cross fracture, cubical and irregular, with deposits of carbonate of lime and charcoal; streak, black and shining. On the fire, splits and fuses slightly. Ash, fawn colour. Specific gravity, 1·260.	34·1	65·9	2·78	1·3	·8	·5	4·2
Silkston No. 2	Colour, jet black; structure, uniform; fracture, in all directions cubical; traces of carbonate of lime and charcoal; streak, brownish black. On the fire, fuses slightly, and intumes. Ash, yellowish fawn colour. Specific gravity, 1·259.	38·	62·	2·55	1·1	6	·5	4·1
Silkston No. 3	Colour, coal black; structure, laminated and prismatic; fracture, slaty and columnar; cross fracture, irregular and cubical, with deposits of charcoal and traces of carbonate of lime; streak, black. On the fire, alters little. Ash, pale fawn colour. Specific gravity, 1·262.	35·2	64 8	2·8	1·45	·75	·7	4 3
Arley (Lancashire)	Colour, coal black, with shining layers; structure, massive; fracture, inclining to slaty, with charcoal deposits; cross fracture, cubical, with traces of carbonate of lime. On the fire, splits slightly, and intumesces. Ash, dull fawn colour. Specific gravity, 1·270.	33·7	66·3	3·6	1 2	·6	·6	4·8
Heathern (Staffordshire).....	Colour, dull black, with shining layers; fracture, slaty, containing deposits of charcoal; cross fracture, cubical, with thin layers of carbonate of lime and iron pyrites. On the fire, splits and fuses slightly. Ash, pale dull yellow. Specific gravity, 1·280.	42·9	57·1	1·75	1·5	·7	·8	3·
Coal-pit Heath (Gloucestershire)	Colour, coal black; structure, granular and crystalline; fracture, coarse grained and irregular in all directions, with numerous layers of charcoal and iron pyrites, and traces of carbonate of lime. On the fire, swells and fuses slightly. Ash, brick red. Specific gravity, 1·370.	30·1	69 9	5·8	4·1	2·2	1·9	8·3
Radstock (Somersetshire).....	Colour, dull black; structure, coarse grained and irregular; fracture, slightly slaty; cross fracture, hackley, inclining to cubical, with layers of charcoal and iron pyrites, in cubical crystals; deposits of carbonate of lime; streak, dull black. On the fire, alters but little, and intumesces slightly. Ash, dull yellow and floculent. Specific gravity, 1·275.	38·25	61·75	3·5	3 1	1·8	1·3	5·6
Rhonda (S. Wales)..	Colour, coal black; structure, coarse grained; fracture, slaty and irregular; cross fracture, hackley and angular. On the fire, swells slightly. Ash, light fawn colour. Specific gravity, 1·278.	22·8	77·2	2·7	2·3	1·2	1·1	3 5
Denain (Valenciennes, France)..	Colour, coal black; structure, coarse grained and slightly fibrous; fracture, irregular, inclining to cubical, with layers of charcoal; cross fracture, hackley and angular, with traces of iron pyrites. On the fire, but little affected, intumesces, and agglutinates. Ash, fawn colour. Specific gravity, 1·265.	29 9	70·1	6·	2·4	1·3	1·1	8·57

(To be continued.)

Correspondence.

WHITE'S HYDROCARBON GAS.

Sir,—About three weeks since I received, under mysterious circumstances, a large posting-bill, of which the following is a reduced copy:—

NOTICE.

THE

EVENING SERVICE

AT THIS CHURCH

will be

DISCONTINUED

for a few Sundays

UNTIL FURTHER NOTICE.

Arthur Fane, *Vicar.*

Thomas Harris, George Wheeler, } *Churchwardens.*

Nov. 8th, 1851.

W. H. Tayler—Printer—Warminster.

As I have never been one of the Rev. Mr. Fane's parishioners, and have no connection with the quiet little country town from whence this document issued, I was at a loss to account for its having been forwarded to so unknown a personage as myself, and, depositing the notice in one of the pigeon-holes of my writing-desk, I left it to time or accident to solve the mystery. Nor had I to wait long, as, a few days subsequently, a reader of your journal drew my attention to a paragraph inserted in a Wiltshire paper, under the head of "Warminster," and couched in the following terms:—

"For some months past serious complaints have been made by the townspeople of the impurity and insufficiency of the gas produced by the company supplying the town. A meeting of gas consumers and inhabitants generally was convened and held on Tuesday, the 4th instant, at the Town-hall, when resolutions were unanimously passed, to the effect that the meeting considered Mr. White's hydro-carbon gas to be a total failure, and that, unless the company returned to the manufacture of coal gas, and reduced their charges from 8s. to 6s. per 1000 cubic feet, another company should be formed for the purpose of meeting the reasonable wishes of the townspeople. A committee was appointed to confer with the existing company, and protect the interests of the consumers. T. Goodman, Esq., presided, and preserved complete unanimity during the proceedings."

The idea at once struck me that there might possibly be some connection between the "total failure of Mr. White's hydrocarbon gas" and the suspension of the evening service for a few Sundays at the parish church, and, on inquiry, I found such in reality to be the case. The whole affair, is, however, so tragically ludicrous, that I must relate, as briefly as I can, the facts which have come to my knowledge in relation to it.

On the 7th of July last a contract was concluded between the chairman of the Warminster Gas Company (acting on behalf of the company) and Mr. Stephen White, by which the latter covenanted to erect at his own cost, within two months from that date, a stack of four retorts and appendages in connection with the then existing works of the company, and to alter the latter as far as might be necessary, so that the new retorts should be capable of producing 20,000 cubic feet of his gas per 24 hours, at a cost of not exceeding 1s. 9d. per 1000 feet delivered into the gasholder for materials used and fuel employed, after deducting the value realised by the residual oil, and that such gas should be superior in quality to that then supplied by the company. He also covenanted that the erection and alterations should in no way interfere with or disturb the manufacture of coal gas by the company upon the system then in operation, but that it should be so arranged that the company should be enabled at any time to resume the manufacture of coal gas, either in connection with, or distinct from, the new erections. He further covenanted that, within three months after the completion of the work, he would test the same in the presence of any parties employed by the company, and prove the capability of the apparatus to produce 20,000 cubic feet of gas of the stipulated quality per diem, at a cost not exceeding 1s. 9d. per 1000 feet for materials and fuel, such testing not to be extended over more than three days, and to be at such time as might be fixed upon by the company, who, on their part, covenanted to pay Mr. White £340 for every charge and expense, including patent right, upon the parties employed by them certifying the result of the trial to have been in accordance with his engagements; but, on his failing to prove the same, he bound himself to remove all his apparatus and brickwork, and to replace everything belonging to the works as he first found them, free of all cost to the company.

The erection of the apparatus was duly commenced and completed some time in September. Supplies of resin were obtained from the respectable houses of Flockton, of London, and Thomas and Fripp, of Bristol, and the hopes and expectations of the Warminsterians had been raised to a high pitch by extravagant statements regarding the purity and brilliancy of the expected light promulgated by Mr. White and his friends. The first trials were not very successful. The gas burnt awfully blue, and the consumers of it began to look blue too. It was given out that the gas-man was a bungler, and did not understand the proper mixing of the ingredients. He was speedily replaced by the most experienced man in Mr. White's staff. Still no amendment, and two retorts were quickly put *hors de combat* by formidable looking cracks. The complexion of the gas consumers' visage assumed a deeper tinge, and inclined from blue to black. Holliday's lamps became an article in great demand, at a high premium, and farthing candles were not unfrequently resorted to, to aid a ghostly gas-light. Some, too, complained, doubtless without cause, of headaches and diarrhœa after sitting in rooms *so lighted;* but, no matter why or wherefore, it is certain that a considerable portion of the consumers had ceased to burn gas before the end of October. The atmosphere at that time assumed a very threatening aspect, and the storm shortly burst forth into open discontent, ending in the calling of the public meeting of Nov. 4, to which allusion has already been made. The vicar closed his church for evening service, in consequence of the deficiency of light, and several other places of worship were about to follow the example. The railway officials threatened to report the gas company to head quarters; and one spirited individual offered the funds requisite to establish an opposition company, on being guaranteed a moderate interest upon the sum advanced.

The course to be taken by the company in this crisis of their affairs was distinctly indicated in their contract with Mr. White, and they at once took the requisite measures for complying with it. They nominated Mr. William Herapath, the distinguished analytical chemist, of Bristol, and an experienced gas engineer under whose superintendence the works were first erected, as the parties for testing the apparatus on their behalf, and fixed a day for the commencement of their operations. Some difficulty arose in consequence of no record having been made of the quality of the gas previously manufactured, and Mr. Herapath suggested that that of Bath, or some other neighbouring town, should be selected as the standard. This was objected to by Mr. White. He, however, attended, and made a communication to the effect that, from some causes which he could not explain, the quality of the gas was very inferior to that which he produced elsewhere; and he consequently requested a delay of ten days, to allow him to consult his chemist. The company having taken his application into mature consideration, came to a unanimous resolution not to comply with it; and, on his refusal to proceed with the test before the parties then present, they gave him notice, in accordance with the conditions of the contract, to reinstate the old coal gas apparatus, and to remove the new. A few days ago Mr. White reappeared with his solicitor, to renew his application; and, being again refused, he proceeded by force so to injure his apparatus as to render it unserviceable, not having previously restored the old apparatus, and thereby leaving the company in the greatest difficulty, and in danger of being compelled to suspend the lighting. The affair is now in the hands of the legal advisers of both parties, and promises to occupy them for some time to come.

Mr. Herapath reported that he had analysed a sample of the gas, and found it to contain 2 per cent. of matter condensible by chlorine, and 8 per cent. of carbonic acid. A five-foot argand burner gave, on one experiment, a light equal to $2\frac{5}{10}$ sperm candles, 6 to the pound, and on another $2\frac{1}{10}$ candles!!

The cost of resin, fuel, and lime, after deducting the surplus oil, valued at 7d. per gallon, has been 3s. 6d. per 1000 feet, upon the average of two months' working—a ludicrous contrast with Mr. White's assertion in the JOURNAL OF GAS LIGHTING for April, 1850, in which the corresponding charges are stated to be less than $3\frac{1}{2}$d. per 1000 feet.

Mr. White's friends give out that some deleterious ingredient must have been surreptitiously mixed with the resin used; but there is not a tittle of evidence to warrant such an assertion. The failure must be due to other causes, of which the public will, doubtless, hear more, should the matter ever come before a public tribunal. I need scarcely say that the inhabitants of Warminster hail with delight the return to coal gas, and look upon the resin-water gas scheme as having disturbed their quietude by its last expiring struggle.

TIMOTHY TICKLE.

London, Dec. 8, 1851.

P.S.—I have to thank you for a sight of a proof of the observations of Mr. Ginty (Mr. White's manager) upon my letter inserted in last month's Journal. So far from the gentlemen alluded to having been chance visitors, whose object was "principally to see the gas made from water," they were known to be delegates from one of the most important of the metropolitan gas companies, specially invited by Mr. White to see gas (equal in quality to that from Wigan cannel) produced from Lesmahago cannel, at the rate of 27,000 feet per ton; and their visit was delayed several days—indeed, I think I may say several weeks, so that the whole apparatus might be in apple-pie order. The production of water gas was, I believe, satisfactory, thanks to the high temperature of the retorts, although the proportion of carbonic acid ranged from 9 to 19 per cent., instead of averaging the former quantity, as Mr. Ginty states. As to the trials with Lesmahago cannel, Mr. White promised to produce at the rate of 16,000 feet of gas per ton more than this cannel will yield by the ordinary process of distillation, whereas only 5000 feet additional was actually added. How, then, can Mr. Ginty say that "far too large a proportion of water gas was produced," when less than one-third of the promised quantity of that gas was employed? As to the temperature, those persons who are accustomed to the use of cannel coal seldom complain of any excess in this respect.—T. T.

SIR,—In the last number of your Journal, a correspondent, signing "Timothy Tickle," has associated my name with his statement in a manner that calls for a reply, which, however, shall be as brief as possible.

The plain unvarnished facts are these:—The two gentlemen alluded to visited Manchester, to examine into the hydrocarbon process of gas manufacture, and, Mr. White being absent, I offered to accompany them to the gas works at Messrs. Clarke's mills, the erections at which, having been undergoing very considerable alterations, were not in a finished state, and of which they were made aware; but, stating their object was principally to see the gas made from water, I was glad to have the opportunity of showing it.

During our first experiment with water gas, two of the joints being newly made, and not previously tested, began to blow within the first 15 minutes, while making at a very rapid rate; this spoiled the experiment, and, after attempting to patch up the joints, a second trial had a similar result. Another bed was now tried, and from two retorts, each six feet long, charged with charcoal, and supplied by a small stream of water, we obtained in one hour 740 feet of excellent water gas, averaging, before it reached the usual purifier, only nine per cent. of carbonic acid, of which scarcely a trace remained after purification. At the end of this hour's working, the meter indicated 670 feet per hour.

A few hours were devoted to trials with Lesmahago cannel and water gas by Mr. White's process, during which the gas made was certainly bad, the cause being evident to every one. The gas-man had got up his heat much too high, and far too large a proportion of water gas was produced, while one half of the entire condensing apparatus was, for the time, out of gear and useless.

Dr. Frankland looked in for some 15 minutes, knowing nothing of these gentlemen's presence or of their object, and neither saw nor assisted at one single trial; he simply gave some directions preparatory to some further experiments, complained of the heats being injuriously high, and left the premises. Was it, therefore, either fair or honest, to state that "Dr. Frankland's presence on the first day failed to have any beneficial influence on the result"?

The gas at these same mills (burning occasionally 40,000 feet a day) has now been for 12 months past (with, perhaps, the exception of a few hours, from blunders of the gas-maker) so superior to anything they ever had before from cannel, that any attempt to substitute the old gas would almost cause a rebellion among the workmen.

W. G. GINTY.

Manchester, December 5, 1851.

Register of New Patents.

William Smith, of Snow-hill, in the City of London, gas-meter maker, and Thomas Phillips, of Brighton, in the county of Sussex, gasfitter, for "*certain improvements in apparatus for heating, ventilating, and cooking by gas.*" Patent dated April 24, 1851.

The first of these improvements relates to the construction of stoves or apparatus to be heated by the combustion of gas, applicable for the purposes of heating and ventilating apartments, buildings, &c. This stove consists of an ornamental case, within which two concentric cylinders of thin sheet metal are placed. The cylinders are connected together, and the lower ends of them are closed at the interval of space between them—one of the cylinders being of less diameter than the other, and placed within it. Within this pair of cylinders two other cylinders of considerably less diameter are placed. One of these is also within the other; and the lower part of the space between the two cylinders is closed, as is the case with respect to the others. The open space between these two pairs of cylinders is intended to be the hot air passage for carrying off the products of combustion from the gas-burner, which is placed immediately beneath it. while the interior spaces between the cylinders themselves are the heating chambers, there being apertures at their lower ends to admit the cold air to be heated, and from which it makes its escape at the top in a heated state. The gas-burner is in the form of a ring, being composed of a piece of gas-pipe, bent round into that form, and perforated with small holes to form the jets of gas; it has a short horizontal stem attached to it, which moves upon a joint, so as to allow the burner to be turned away from under the stove when required. This arrangement the patentee terms a swing or telescopic burner.

The next improvement consists in a mode of heating the water in baths and other like reservoirs or vessels. A peculiar description of small boiler is attached by two pipes to one of the baths. This boiler is of such a construction as to allow a free circulation of the water of the bath through it—the heated water passing from the boiler into the bath through the upper pipe of attachment, and the cold water from the bath passing to the boiler through the lower pipe near the bottom. Thus a free circulation of the water is obtained while the gas-burner of the boiler is in operation, and until the water is sufficiently heated. The burner used in this boiler for the combustion of the gas is of the same description as that previously described.

The next improved apparatus described is one for the purpose of heating, by the combustion of gas, the soldering tools of plumbers and other artisans, and other tools requiring to be heated when used. This consists of a small square chamber, one side of which is open, and surmounted by an opening or chimney for carrying off the products of combustion. The chamber is without a bottom, and within it is arranged a series of pipe-burners, with apertures for the combustion of the gas. There is a bar or rail across the chamber, upon which the soldering tools to be heated are placed, and they are placed in through the open side. The combustion of the gas from the burners below effects the heating of the tools to the extent required.

The improvement next described is a mode of ventilating dwelling-houses. This is by the employment of a gas-stove, as before described; this is placed in the lowest room or apartment in the house, and a hot air pipe, carrying off the products of combustion from the stove, is carried up to the upper part of the house. A branch pipe from each apartment is connected with this main pipe, and thus the vitiated air from the apartments is drawn through the branch pipes and carried off.

The next improved apparatus is a cooking-stove or apparatus, in which the whole of the heating and cooking is performed by the heat obtained from the combustion of gas. The apparatus is composed of several compartments, in which the several culinary operations of roasting, boiling, broiling, baking, &c., are carried on in a manner independently of each other. Any one or more of these operations may be performed as required. The gas-burners employed in this apparatus may be of the swinging description above described, or they may be made by having the perforations, forming the jets of gas, upon the under sides of the tubes composing the burners. This is for the purpose of preventing the perforations becoming choked by grease, &c., from the articles cooked.

The patentees claim:—

First. The arrangement and construction of heating-stoves, or apparatus, to be heated by the combustion of gas, being the combination of the hot and the cold air cylinders and the swing-burners. Also, the application of this apparatus for the purpose of heating water.

Secondly. The mode of constructing swing gas-burners, to be employed in conjunction with the cooking and heating apparatus herein described.

Thirdly. The construction of boilers or water-heating apparatus, heated by the combustion of gas, applicable to the heating of the water in baths and other vessels.

Fourthly. The construction of apparatus, and its application, for the purpose of heating, by the combustion of gas, soldering and other tools.

Fifthly. The mode described of ventilating the apartments of dwelling-houses.

Sixthly. The construction and arrangement of cooking-stoves or apparatus described.

Seventhly. The construction of burners for the combustion of gas, by forming and making the perforations for the jets upon the under side of the tubes.

Peter Armand Lecomte de Fontainemoreau, of Finsbury, and Paris, for "*improvements in the manufacture of fuel.*" (A communication.) Patent dated May 3, 1851.

This invention consists in manufacturing charcoal from the small branches of trees, annual plants, all kinds of refuse of wood, such as tan, shavings, sawdust, &c., and in combining the same with other inflammable substances.

The branches are, in order to their conversion to charcoal, subjected to several different operations; the first of which consists in partially carbonising them to facilitate their subsequent pulverisation; the next operation is to pulverise the carbonised branches, which is effected by means of rollers revolving around a centre in a circular trough; they are then impregnated with coal-tar, or other similar bituminous or resinous substances, and well mixed into a paste; the mixture is then compressed into blocks, which are finally subjected to carbonisation in close pots in a suitable furnace, into which the pots containing the moulded charcoal are introduced on carriages running on rails laid down in its interior. The pots are placed on the carriages, two of which are introduced into each furnace, and the process of carbonisation is effected by the heat generated by the ignition of the gases arising from the moulded charcoal. When the charcoal ceases to give off any gas, the process is considered completed.

Cokedust may be also treated in a similar manner, and a good fuel thereby produced, the quality of which may be improved by the addition of coaldust in quantities varying according to the nature of the product desired. A charcoal having a metallic sound may be produced by treating cokedust of good quality as above described, and then immersing it in coal-tar, and subjecting it to carbonisation in closed vessels, repeating the immersion and carbonisation until it ceases to increase in weight.

In order to obviate the difficulty which occasionally exists in igniting charcoal of a close texture, the patentee sprinkles the blocks, previous to the final carbonisation, with a solution of some salt capable of melting, crackling, or decomposing under the influence of heat; or he mixes the salt with the charcoal in a state of powder, and thereby produces in the carbonised blocks an artificial porosity.

Claims.—First. The carbonising the small branches of trees and other animal plants, and the refuse of all ligneous substances, by means of the apparatus described.

Secondly. The pulverising of carbonised small branches of trees and animal plants, and the refuse of all ligneous substances, as described.

Thirdly. The mixing of carbonised and pulverised small branches of trees and animal plants, and the refuse of all ligneous substances by means of the apparatus described.

Fourthly. The moulding of carbonised, pulverised, and mixed small branches of trees, animal plants and refuse, and all ligneous substances, by means of apparatus described.

Fifthly. The mode of carbonising in close vessels the carbonised, putrefied (*sic* in orig.) mixed and moulded small branches of trees, animal plants, and refuse of ligneous substances, by means of the apparatus described.

Sixthly. The mode of rendering charcoal more easily inflammable by means of an artificial porosity. (By a clerical error the word "animal" is throughout the claims substituted for "annual.")

Harding Hallen, of Burslem, Stafford, manufacturer, for "*improvements in gas-burners.*" Patent dated May 10, 1851.

This invention consists of a method of combining together "pot or fire-clay," or other clay composed of any mixture of potters' materials, with metal in the construction of gas-burners, the external portion of the burner being of metal, and that portion of the burner in which the holes are pierced being made of clay, which is much better calculated to resist the action of the flame or the corrosive action of the products of combustion, which speedily destroys gas-burners made entirely of metal. The improved compound gas-burners are also more accurately manufactured in the first instance, and ensure a uniform and permanent flame, which will retain its size and shape for any lengthened period.

The drawings represent a fish-tail burner and an argand burner constructed according to the invention, the external portions thereof being composed of metal, and the inner portions of a button and a ring of clay respectively. The button for the fish tail burner and the ring of the argand burner are each formed in suitable moulds while the clay is in a plastic state, after which they are dried and burnt till of sufficient hardness, when they are fixed into their place in the body of the burner either by cement alone, or by cement and by burnishing down the edge of the metal upon the upper surface of the clay. It is obvious that a great many varieties, if not all kinds of gas-burners, may be formed in the manner just explained for forming fish-tail and argand gas-burners; that is to say, by the insertion of perforated buttons, rings, or pieces of pot or fire-clay into that part of the burner through which the gas issues.

Claim.—The constructing of gas-burners of a combination of metal and "pot or fire-clay," or other clay composed of any mixture of potters' materials, as above described.

Alfred Vincent Newton, of Chancery-lane, mechanical draughtsman, for "*improvements in the carbonisation of coal, and in the utilisation of the products disengaged during that operation; in improving the quality of the products intended for illuminating purposes, and in regulating the same.*" Patent dated May 27, 1851.

This specification describes improvements which have reference, first, to the production of gas from coal, and at the same time, and by the same process, producing the coke resulting from the coal of a quality suitable for the smelting of metallic ores, and also for the generation of steam in locomotive engines; and preventing, in a great degree, the production of bituminous oils during the process of the distillation of coal, thereby giving to the gas produced a greater illuminating quality. And, secondly, to the construction of regulating apparatus, by which the passage or flow of gas through pipes is rendered much more uniform and equable than hitherto.

When coal is submitted to the process of destructive distillation by the ordinary methods pursued in works for the manufacture of gas for purposes of illumination, the coke produced is of a nature very ill-suited to be subsequently employed in the smelting of metallic ores, or for the generation of steam in the boilers of locomotive engines. Several methods, however, have been adopted for the purpose of producing these named products fit for the purposes described, but only with partial success. If the cooling of the coke

is caused to take place in the retorts or vessels themselves in which the distillation of the coal is effected, as is sometimes the case, a great loss of time and heat results. If, however, on the contrary, the coke is discharged from the retorts in a state of incandescence, and cooled in the usual manner, then the exposure of it to the atmospheric air and water produces a change in the nature of it, rendering it brittle, light, and of an open texture; and, by the ordinary construction of the apparatus employed—the retorts of the distilling vessels—considerable time is taken up in the charging them with coal, and in discharging the coke from them, and consequently considerable quantities of heat are thus lost; and also the gas produced at the commencement of the operation is at the succeeding charge of very inferior quality, by reason of the decreased temperature of the retort.

The present improvements are intended to remedy these defects in the manufacture, and produce gas of a quality fit for illumination, and coke suitable for the smelting of metallic ores, and for consumption in locomotive engines. The improved apparatus, which the specification describes, may be employed either with or without an extracting apparatus for extracting the gas from the distilling vessels, according as to whether the gas produced is required for subsequent illuminating purposes, or is to be used as a fuel, or a means of obtaining the heat necessary for the distilling process; and the principal objects which the present method of operation is intended to effect are, to operate upon the coals in considerable quantities at one time; to effect the cooling of the coke in a close vessel, separate from that in which the distillation takes place, and without contact with the atmospheric air or the employment of water. By operating by this improved method, the process is carried on continuously, the discharging and the recharging of the retorts or distilling vessels taking place almost simultaneously. The gas produced will also be more highly percarburetted than by the usual methods of production, by reason of the more uniform and higher temperature of the distilling portions of the apparatus, during the several repetitions of operation. The apparatus consists principally of two vessels, one forming the distilling vessel, and the other the receiving or cooling vessel; these are placed contiguous to each other, the cooling vessel being beneath the distilling vessels, so that the coke resulting from the distillatory process in the first vessel may with facility be discharged into the latter vessel, the discharge taking place in a very quick manner, by the mere manual labour of opening the doors of the vessels. These vessels are shown in the drawings of the specification as being constructed of brickwork; their form is circular, in cross section, curved in the longitudinal direction, and placed in such an inclined position that the coals may be passed freely into the upper or distilling vessel, and the coke pass as freely, by its own gravity, from the one vessel to the other, when the doors are opened for the purpose. Doors are fitted to each of the ends of both vessels, the door upon the upper end of the distilling vessel being for the purpose of charging in the coals; those upon the lower end of this vessel, and the upper end of the cooling vessel, are opened simultaneously, and are for the purpose of allowing the coke to pass down into the cooling vessel. These two doors are sliding doors; they are placed nearly close together, and opposite to each other, and are attached to a crane, by which they are closed and opened when required. The lower end of the cooling vessel is also closed by a door, which is opened when it is required to discharge the cooled coke from the vessel out on to the ground in the open air. Under, and in connection with, the distilling vessel is arranged one or more furnaces, from which the heat of the distilling vessel necessary for the operation is obtained, the flues for this purpose passing around the distilling vessel; and there are also channels around the cooling vessel, through which cold atmospheric air is allowed to pass, to aid in keeping the vessel cool. Near the upper end of the distilling vessel is a flue or pipe, through which the gas generated in the distilling vessel is passed, passing from this pipe through two inclined pipes to a stop valve, hence to the hydraulic main, and thence conveyed in the usual manner to the purifiers or gasholder. The gas follows this course when it is to be employed for the purposes of illumination, but when it is to be used as fuel for heating the distilling vessel, then the valve at the hydraulic main is closed, and the gas allowed to pass away through another pipe to the furnace under the distilling vessel, to be there consumed. This valve consists of a double pipe or plunger, the upper end of which is closed; the lower end, which is open, dips the inner portion of it into the fluid in the hydraulic main, and the outer portion into water contained in the valve-box, thus forming an hydraulic valve, effectually preventing the passage of the gas. When one charge of coal in the distilling vessel is fully carbonised, it has to be discharged into the cooling vessel beneath, which is now supposed to be empty. All, then, that is requisite, is to remove or open, by means of the crane, the doors which close the lower end of the distilling vessel and the upper end of the cooling vessel. The instant this is done, the whole mass of coke descends immediately by its own gravity; the doors are then again immediately closed, and almost simultaneously a fresh charge is introduced from a truck or waggon through the upper opening into the distilling vessels. This opening is instantly closed, and the distillation of the coal immediately commences, and the operations repeated, no time or heat being lost in the discharging and the recharging while the distillation is going on in the distilling vessel. The coke last discharged from that vessel into the cooling vessel is allowed to remain till sufficiently cool, no atmospheric air or water being introduced. It is then discharged from the lower door, and the vessel is then empty, ready to receive the next discharge of coke. The drawings of the specification show a modification of the above apparatus. In this, the cooling vessel is dispensed with, the coke resulting from the distillation of the coal being discharged direct from the distilling vessel into the atmosphere. In this case this vessel has a considerably greater degree of curvature than the former apparatus; otherwise the arrangement is nearly the same.

The second part consists in a construction and mode of action of a regulator-apparatus, to be applied to pipes through which gas is passed, and the intention of it is to regulate the pressure and delivery of the gas to the demand or flow of it. It consists in the application of a valve, resembling in its form and mode of action an ordinary throttle valve of a steam-engine, and the object of it is to increase or diminish the area of the opening or aperture through which the gas passes, in proportion as the demand and pressure are more or less. In connection with the pipe through which the gas passes, and in which this throttle-valve is mounted, is a vessel containing water, within which is mounted an inverted bell-vessel, similar in form and action to the ordinary gasholders. This dips into the water in the vessel, and is suspended from one end of a beam moving on bearings fixed to the vessel. The opposite end of the beam carries a weight as a counterbalance to the weight of the inverted bell-vessel. To this end, also, is attached a rod, likewise attached to the lever of the throttle-valve, so that, upon any movement of the beam taking place, it is communicated to the throttle-valve, to increase or diminish the amount of opening for the passage of the gas through the pipe. That space of the vessel which is beneath the inverted vessel or float communicates, by means of a small pipe, with the open air, so as to prevent any difference of pressure upon the inside when the float-vessel rises or falls. Upon the shaft upon which the beam is mounted is also fixed an adjustable lever and weight, in an inclined position. The object of this is to adjust the equilibrium of the apparatus, previously to its being set in operation, which is thus:—the gas, being admitted, passes through the throttle-valve into the float-vessel, and, if at the adjusted pressure, it passes onward by the discharge-pipe; but, should the pressure of the gas be increased, it will act upon the upper side of the float-vessel, against the atmospheric pressure beneath it, and sink it in the water, depressing that end of the beam, and raising the other, thereby moving the throttle-valve, so as to diminish the amount of opening, allowing less gas to pass, until the proper pressure is restored; and, when the pressure of the gas in the float-vessel is decreased, then the float-vessel will rise, and increase the opening of the pipe, by the throttle-valve allowing an increased quantity of gas to pass. The pipe which communicates between the space beneath the float-vessel and the atmosphere can at any time, by means of stop-cocks, be put in communication with a manometer, or indicating-apparatus, and which also has a communication, by means of a tube, with the float-vessel, above the float, for the purpose of ascertaining at any time the pressure in the apparatus, both before and behind the throttle-valve.

The patentee claims, as regards the apparatus for the production of gas and coke:—

First, the arrangement of the distilling-vessel or coke-oven described, which may be used either with or without the cooling-chamber or vessel, and arranged in combination with furnaces and flues for the distribution and transmission of the heat.

Secondly, constructing of a curved form the chamber in which the distillation or carbonisation of the coal is effected, and which chamber or vessel is placed at a degree of inclination suitable for the charging or feeding of the coals, and for the proper discharge of the coke.

Thirdly, the placing or arranging the cooling-chamber in such manner that it may form a continuation of the distilling-chamber.

Fourthly, the mechanical arrangement of the apparatus, by means of which the coal is fed or charged into the distilling vessels, together with the other arrangements, by means of which the distilling and the cooling-chambers are put in communication with each other, in order to allow the charge of coke to pass from one chamber or vessel to the other.

Fifthly, the general arrangement of apparatus, which enables the coal to be operated upon in such masses as to obtain coke of greater degree of density than is obtained by the present mode of operation.

Sixthly, the arrangement and construction of the moveable crane, and its application for the purpose of working the moveable doors or covers of the distilling and the cooling-vessels or chambers.

Seventhly, the arrangement of apparatus placed near the top of the distilling-vessel, by means of which the gas produced in distilling-vessels may be collected for the purpose of illumination, or it may be wholly or partially applied for heating purposes.

As regards the regulating apparatus, the patentee claims the peculiar construction and arrangement of the regulator described, for the purpose of regulating the flow, or passage, and the distribution of the gas.

Henry W. Adams, of Boston, U.S., for "*an improved means of generating galvanic electricity, of decomposing water or various electrolytes, of collecting hydrogen, of burning it or atmospheric air, separately or in combination.*" Patent dated May 29, 1851.

The first part of this invention consists in constructing galvanic batteries, so as to obtain from a given weight of metal the greatest possible quantity of electricity, and to give it the highest degree of intensity.

The method adopted by the patentee in constructing his batteries to obtain these results is as follows:—He takes from 30 to 50 copper or other electro-negative metallic wires, of about one-sixtieth of an inch in diameter, lays them side by side, and insulates them in one bundle or package. He then takes a zinc cylinder, about 8 inches long, 4 inches in diameter externally, and 3½ inches in diameter internally, about which he winds the electro-negative metal, in double coils, inside and outside, attaching one end of the coil metallically to the zinc, but leaving a space of a quarter of an inch between the zinc and the coils, to be occupied by the water to be decomposed. The metals thus arranged constitute a single cell, having a great increase of aggregate surface of the electro-negative metal over the electro-positive metal, instead of the metals being arranged with equal, or nearly equal, surfaces in each cell, as is the case in the single-cell batteries hitherto constructed.

In using these batteries for decomposing water or other liquid or electrolyte, the battery is immersed therein, and the liquid then forms a thin sheet, occupying the space between the coils and the zinc, by which means the full decomposing effect of the electricity can be obtained. When water is being decomposed, the oxygen of the water

combines with the zinc, and forms an oxide of zinc, which should be held in solution by slightly acidulating the water with sulphuric acid; the hydrogen liberated at the same time may be collected and burned, if so desired, or applied to other purposes. When the water becomes super-saturated with oxide it should be drawn off, and a fresh supply added. The patentee next proceeds to describe and claim an arrangement of apparatus for collecting the gas, and supplying fresh acidulated water or other liquid, and for removing the used fluid from the battery.

Another method of decomposing water, and obtaining hydrogen and oxide of zinc, consists in substituting heat for the acid, and retorts for negative metal of the battery. The retorts are charged with zinc or ores of zinc, and the water or steam is passed through them while in a heated state; or one retort may be charged with carbonaceous matter and a second with zinc, and the water passed through each of them successively, by which means hydrogen will be liberated, and an oxide of zinc formed in the second retort. The gas produced is subsequently carbonised by passing it through a benzoling vessel, or it is passed through a retort containing oil, tar, resin, or carbonaceous matter, undergoing decomposition, by which the gas is rendered permanent.

Another improvement consists in a method of increasing the heating power of hydrogen or other gas by passing it, previous to combustion, through or in contact with charcoal or charred matter in a pulverised state.

Another part of this invention consists in the construction of a vessel for impregnating atmospheric air or gas with the vapour of volatile hydrocarbons, such as benzole, alliole, acetone, pyroxilic spirit, and other analogous burning fluids, which are sufficiently volatile to carbonise air or gas at at common temperatures. This vessel consists of a perfectly air-tight box, divided horizontally into compartments communicating each with the one next it, by means of pans supporting perforated shelves, on which are placed layers of sponge, cotton, wicking, or other suitable porous material. The top of the box is provided with a funnel for the introduction of the benzoling or other fluid, which is poured in in sufficient quantities to saturate the layers of sponge, and fill each of the pans; the bottom of the vessel is made double, the false bottom being perforated, to admit of the superfluous fluid flowing out, and of the gas ascending to the compartments, each of which it traverses in succession, becoming impregnated during its passage, and finally passing off through an aperture at the top of the vessel to a gas or air-holder, or to the burners. By this arrangement the air is exposed to a continuous surface of the benzoling fluid; and, in consequence, is thoroughly impregnated, without the necessity of adopting means for raising the temperature of the fluids; and without the employment of mechanical pressure for forcing the air, as it readily ascends through these chambers of vapour.

Another improvement consists in the adaptation of burners suitable for the combustion of benzolised air. For this purpose the patentee enlarges the aperture of the burner, whether argand, fish-tail, or otherwise, to such an extent as to enable them to deliver a sufficient quantity of benzolised air to produce good light, without resorting to extraordinary pressure, and he places over the burners platinum, palladium, or other analogous metallic cones, which, by becoming heated to a white heat, when the air is ignited, produce a light of intense brilliancy.

Another part of the invention consists in constructing air-holders and suppliers. In one arrangement the body of the holder is composed of flexible material, with hoops to retain it in form; the air is supplied to the holder by a pair of bellows, and exhausted by compressing the holder by a weight or other suitable means. For producing a regular supply of air to the burners, the patentee employs a common gas-meter, open to the air, which he sets in rotation by a similar arrangement of gearing, and draws in the air through a pipe in connection with the holder, and forces it out to be supplied to the burner. In order to prevent unsteadiness in the light, he also employs a small holder between the burners and the air supplied.

Claims.—First. The construction of a battery with the electro-negative metal in any one cell thereof, arranged in a bundle of two or more thicknesses, presenting a considerably increased aggregate surface opposite the electro-positive metal, instead of nearly equal surfaces of one metal against the other, as batteries have been hitherto constructed; the greatest capacity of the battery being obtained when a given weight of the electro-negative metal presents the greatest aggregate surface within the smallest space opposite the electro-positive metal.

Secondly. The insulation of either of the metals used in a battery for the purpose mentioned.

Thirdly. The construction of a galvanic battery so as to give to the quantity of electricity generated in a single cell the greatest possible intensity, by presenting the greatest possible aggregate surface of the electro-negative metal opposite the electro-positive metal, in an insulated coil or coils, which, to give the greatest intensity, should be of the smallest possible size that will conduct the quantity of the electric current without its melting the coils.

Fourthly. The use in a galvanic battery of the negative metal in the shape of a wire or wires, or sheet or plates, in single or double coils or packages within or around, or within and around the electro-positive metal, so as to present in the smallest space opposite the electro-positive metal the greatest possible amount of conducting surface.

Fifthly. The insulation of the metallic wires, or sheets, or filaments, or packages of metal in a battery, when wound in a coil or otherwise disposed, in order to generate and conduct the current in a circuit of coils, so as to give to the quantity of electricity in a single cell the greatest possible intensity, and also to give a magnetic power to the coils, by virtue of the lateral force of the galvanic current flowing on an insulated surface.

Sixthly. The making of the electro-negative metal of a battery in the form of a coil, whether the electro-positive metal be of the same or any other form.

Seventhly. The direct immersion of the battery in the water to be decomposed, and the dispensing with conducting wires leading from its opposite poles; the water being either hot or cold—thus completing the circuit, and increasing its effect on the liquid by contact with it.

Eighthly. The winding or disposing of the coils or metals so as to leave a thin sheet of water merely between the zinc or other oxydisable metal and the electro-negative metal, for the sake of causing the current to exert on the thin sheet of water its entire decomposing energy, without being obstructed by too great a body of water.

Ninthly. The employment of the galvano-electric current to influence the chemical affinity of the oxygen of the water for the zinc or other oxydisable metal to combine more rapidly with the zinc or other metal, by the simultaneous exercise of both these powers, and thereby liberating the hydrogen with greater rapidity.

Tenthly. The use of this battery for producing motive power.

Eleventhly. The removal of the oxydised water in batteries arranged and operated as aforesaid, to be converted into products of commercial value by any known chemical means.

Twelfthly. The charging of retorts with zinc, or the ores of zinc, entirely or in combination with charcoal, coke, or other analogous carbonaceous material, when decomposing water and manufacturing oxide of zinc, as described.

Thirteenthly. The employment of charcoal, or other analogous carbonaceous material, to improve the heating properties of hydrogen or other gas or mixture of gases.

Fourteenthly. The arrangement of a series of basins and perforated shelves, with the funnel and draw-off cocks, in combination with sponge, or other similar porous or absorbent materials, for the purpose of benzoling common air and other non-luminous gases with any of those hydrocarbons which are sufficiently volatile to enable air or non-luminous gases to burn with a clear white light, when passed through chambers filled with their vapours at common temperatures, and at a distance from the benzoling reservoir.

Fifteenthly. The conversion of argand, fish-tail, bat's-wing, and union-jet burners, where all the parts are immoveable, into air-burners.

Sixteenthly. The use of any construction of platinum, palladium, or other analogous metallic cones, wicks, or conductors, to be placed in such contact with the flame produced by the burning of common air, imbued with the vapour of any volatile hydrocarbon, as to be heated to a white heat, and thereby to increase the intensity and brilliancy of the light.

Seventeenthly. The construction of air-holders and suppliers in manner set forth.

Miscellaneous News.

THE GAS QUESTION IN ST. MARYLEBONE.

VESTRY MEETING, NOV. 8.

At the usual weekly meeting of the vestry of St. Marylebone, held on Saturday, Nov. 8, Henry Lewis, Esq., in the chair, a deputation from the ratepayers and gas-consumers of Oxford-street presented a memorial, praying the vestry to permit the Western Gas Company to lay down mains for the lighting of Oxford-street.

Mr. WARE, in presenting the memorial, said it contained 202 signatures, among which were the names of Messrs. Hutton, Burton and Co., Graham, Cottam and Hallan, Hyams, and several others of the largest consumers in Oxford-street. The signatures had been all obtained on the previous day. The Western Company was anxious to afford the consumers the benefits of its gas; and the memorialists believed that it was vastly superior to, and cheaper than, that of other companies. Its purity rendered it especially available for private apartments; and, if the Western Company were once admitted into Oxford-street, he believed their gas would be generally used even in bedrooms. He had had an opportunity of seeing the same sort of gas (cannel coal gas) used in every apartment of the house. The gas supplied by other companies was so obnoxious, that it would poison any one who admitted it into his bedroom. He was aware that some of the old companies professed to supply cannel coal gas to any one that required it; but what they furnished was a very inferior article to that given by the Western Company. Their gas was more brilliant, purer, and cheaper; and therefore he trusted the vestry would give the inhabitants of Oxford-street the advantage of using it.

Mr. GEORGE: Allow me to ask whether you procured the signatures as an agent to the company?

Mr. WARE: I am no agent of the company; I assisted in getting up the memorial.

Mr. GEORGE: Did Mr. Skelton go round with the memorial?

Mr. WARE: I believe so; but I can bear my personal testimony that the signatures are genuine.

Mr. GEORGE: My question is, whether the memorial originated from you, or the Western Company, or the inhabitants of Oxford-street?

Mr. WARE: It originated from the inhabitants.

Mr. GEORGE: Then I can inform you that Mr. Skelton, a person employed by the Western Company, had been engaged several days in procuring signatures to it.

Mr. WHITMORE: I wish to ask if you have tried the cannel coal gas which the Chartered Company supply, and which can be had if the people prefer it?

Mr. WARE: I have seen it; but I would not change my gas for such cannel as they would supply.

Mr. WHITMORE: Are you aware of the fact that it has been tested, and found superior to that of the Western Company?

Mr. WARE: No; but I hold in my hand a counter-statement, which proves the contrary.

Mr. WHITMORE: You do not doubt the fact that Professor Cooper has certified that the Chartered Company's gas is superior?

Mr. WARE: I have here a statement to the contrary by an eminent engineer.

Mr. SODEN: Have you heard any gentleman saying that he had been much annoyed by being asked to sign the memorial?

Mr. WARE: Certainly not. The signatures to the memorial were obtained yesterday, and I have presented it on behalf of my neighbours, who want to have a pure gas to light their apartments. Wherever the gas of the Western Company has been introduced, it has been taken up directly.

Mr. CLARKE: Are you a shareholder in the Western Company?

Mr. WARE: No; I have not the slightest interest in it.

Mr. KIRBY: Who are the eminent men who have certified the superiority of this gas?

Mr. WARE said he should name his authorities; and then proceeded to read a printed report of some experiments made on the common coal gas supplied by the Chartered Gas Company, and the cannel gas supplied by the Western Gas Company, in July, 1850, by Mr. Wright, the present engineer of the latter company.

Mr. MALLALUE: Has any party in the neighbourhood of Knightsbridge taken this gas and discontinued it?

Mr. WARE: No; but I have heard of a person doing so with the Chartered.

Mr. MALLALUE: Then I can inform you that Messrs. Challicombe and Mayhew, who live at the corner of Charles-street, Knightsbridge, and who burn from 70 to 90 lights, took the gas of the Western Company, but afterwards gave it up, and went back to the Imperial, whose gas they declared to be much better.

Mr. WARE said several of his neighbours had availed themselves of the gas of the Western Company, and highly approved of it. This was one of those progressive questions connected with the sanitary movement. It was not only important to have good gas, but a free and healthy competition was a great desideratum. (Hear, hear.)

Sir JAMES HAMILTON: If admitted into Oxford-street, are you prepared to light the whole parish? ("That's a settler.")

Mr. WARE said he did not belong to the Western Company, and, therefore, could not answer the question.

A MEMBER: If you are prepared to take the cream, you should not object to take the skim milk. (A laugh.)

Mr. HODGES: Have the inhabitants of Oxford-street the benefit of competition now?

Mr. WARE: No; for the Chartered and Equitable Companies have amalgamated. (Oh, oh!)

Mr. HODGES: Do you mean to state that as a fact?

Mr. WARE: I believe it. I had a circular from both companies nine months ago, stating their intention to amalgamate. Both companies now supply gas at the same price; and, I believe the small consumers pay a higher price. The common gas is 4s. per 1000, but, if the consumption is under £12, the price is 4s. 6d., so that the poorer man pays the most.

After some further cross-examination, the memorial, of which the following is a copy, was read:—

"We, the inhabitants of Oxford-street, request you will allow the Western Gas Company to lay their mains for the supply of gas in this street."

The deputation then withdrew.

A deputation from the St. Marylebone Gas Consumers' Protection Committee was next introduced, for the purpose of presenting a resolution agreed to by that body at their last meeting, in reference to the application of the Western Company. The deputation consisted of Mr. Belton, Mr. M'Dowall, and Mr. Concanen. The following is the resolution:—

"That the committee view with alarm the proceedings of your honourable board with reference to the application of the Western Gas Company to lay down their mains in Oxford-street, the basis of that request being to place them in a position from a trunk-line to communicate with the other parts of the parish. The committee regret your honourable board should have negatived the admission of the only competing company, thus destroying the principles of free trade, by placing the interests of the parishioners in the hands of companies, without let or control, who have combined and coalesced for the last 20 years, to the great detriment and injury of all classes in the parish."

Mr. BELTON then addressed the vestry, and contended that the Western Company had effected a saving of £1000 a year in the public lights, and that the saving to the inhabitants of Oxford-street alone was about £3000 or £4000 per annum. He thought the free-trade principle should be carried out in gas, as well as in every other commodity, and could not understand why the Imperial Company should receive £3. 11s. for the public lamps, while the Western Company could light them at £3. 3s. at a good profit.

Mr. M'DOWALL advocated free competition in the article of gas. The gas burners themselves should have an opportunity of making their own gas at prime cost. Within 12 months he believed coals could be supplied at 10s. 6d. per ton, and that 1000 cubic feet of gas could be placed in any gasometer for 1s. 3d., all expenses included. A new company could build their gasometer, and lay pipes of the best quality at £5 per ton, and go over the whole parish for 9d. per 1000. This would reduce the entire cost of the gas to 2s. per 1000 feet. A new company which had been formed had been promised the support of 3174 consumers, while the whole number in the parish did not reach to 5000. He hoped the free-trade principle would not only be carried out in gas, but also in water, the price of which at present was 100 per cent. more than it ought to be.

Mr. CONCANEN said there were three parties concerned in this question; the ratepayer, the ratepayer and consumer, and the consumer who was not a ratepayer. He belonged to the latter class, and he hoped some arrangement might be come to by which they might not look with jealousy upon one another, and that they might be universally benefited.

The deputation having withdrawn,

Mr. WESTON moved that the minute of the previous Saturday, referring the application of the Western Company to a committee, be non-confirmed.

Mr. CLEMENT GEORGE seconded the motion, on the ground that a member of the vestry had been nominated on that committee who was a shareholder in the Western Company, and that coercion had been used towards him and others of the committee who took his view of the question as to the admission of the Western Company.

Mr. SODEN stated that Mr. George set himself up in defiance of a majority of at least 10 to four in the committee, and charged that gentleman, when he could not defeat them by fair means, with using artifice to support the Equitable, and keep out the Western Company. He contended that the Western were prepared to comply with all reasonable demands made by the vestry.

Mr. HODGES, although opposed to the admission of the Western Company, thought the report of the committee ought to stand upon its merits; he, therefore, could not support the non-confirmation.

Captain Probin, Mr. Row, Dr. Russell, Mr. Beacon, Mr. M'Evily, and others, spoke upon this question, and the non-confirmation was ultimately negatived by a considerable majority.

The gas committee then retired to consider and agree, and bring up their report. After a short delay,

Mr. SODEN said he had, in the first place, to present the report of the gas committee as to the Imperial Company.

Mr. GREENWELL, the vestry clerk, then read the following report as to the negotiations between the gas committee and the Imperial Company:—

"St. Marylebone, Nov. 8, 1851.

"At the committee appointed to consider the subject of entering into new contracts for the supply of gas to the public lamps; present—J. K. Pritchard, Esq., in the chair; Messrs. George, Hodges, Bousfield, King, Swaine, Humfrays, Soden, M'Evily, and Heyliger—your committee report specially that the vestry clerk, by their direction, on the 9th day of October last, applied to the directors of the Imperial Gas Company, to ascertain the terms upon which they would be disposed to enter into a contract for the supply of the public lamps in the district of the parish which was lighted by that company, upon the termination of the present contract, on the 31st of December next, trusting that they might be able to offer terms more advantageous to the parish than those of the present contract; and at the same time the Imperial Company were apprised of the terms of the contract which was then about to be entered into with the Equitable Company for the supply of the public lights in the other portion of the parish; and your committee also called the attention of the Imperial Company to the terms upon which private consumers were being supplied in such districts, and requested the immediate consideration of the subject, with a view to place the parishioners in the district lighted by them on an equality with the remainder of the parish.

"After further correspondence between the vestry clerk and the secretary to the Imperial Company, copies of which are annexed to this report, the company, in a communication of the 24th of October last, stated that the directors had long under consideration the anomaly referred to by the vestry, of the consumers in one portion of the parish paying a higher rate for gas than their neighbours, and had been most anxious to do away with this distinction so far as their position would admit, and they had therefore contemplated the making a further reduction in the price of their gas by meter on the 1st of January next. The directors regretted that, in coming to the conclusion to make a reduction in the price of the private lights, they were unable to afford any reduction in the charge for the public lights.

"After taking the reply from the Imperial Company into consideration, your committee instructed the vestry clerk to request the company to inform them the reduction proposed to be made in the private lights from the 1st of January next, and also at what reduced price they were willing to supply the public lights for one year, and continue from year to year, at the option of the vestry, without any restrictive clauses being contained in the contract; and the Imperial Company were requested to appoint a conference at the Court-house, between your committee and a deputation of the directors, that the views of the different parties might be communicated and discussed; and in reply the company have stated that they are not yet in a condition to state the precise amount of reduction they will be enabled to make in the price of gas on the 1st of January next, as that must depend on their accounts, but that the reduction will be made to the fullest extent that those accounts will admit of. And, in further reply to your committee's inquiry, the company repeat the expression of their regret that, in coming to the conclusion to make a reduction in the price of the private lights, they are unable to afford any reduction in the charge for the public lights, and, therefore, the terms of their tender, if called upon to make one, would be precisely such as are provided in the existing contract—viz., £3. 11s. per light per annum for three years, or such portion of the term of three years as the Imperial Company's pipes are the only gas pipes in the district supplied by them; and, as those terms were come to after mature deliberation, they considered it unnecessary that a deputation from their court should trouble the vestry by personally attending to explain them.

"Your committee recommend that an application should be made by the vestry to the Imperial Company to renew their contract to supply the public lamps in the district now lighted by them at £3. 5s. per light for three years, at the option of the vestry, omitting the proposed clause, whereby the vestry would be called on to pay an increased price for the public lights in the event of any other mains being laid down in the same district. (Signed) "I. K. PRITCHARD, Chairman."

Mr. PRITCHARD moved that the report be adopted, which having been seconded,

Mr. GEORGE moved an amendment to the latter part, to the effect that the Imperial Company should be called on to renew their contract at £3. 5s. each public lamp. In the event of the vestry granting permission to any other company to lay down pipes in the said district, which the vestry shall be at full liberty to do, the company to continue to light at the same price as they may be supplying private consumers at, but to include the lighting, cleaning, and painting until the expiration of contract.

The amendment being also seconded, a long discussion ensued.

Mr. SODEN contended that the effect of such an amendment would be to shut out all competition, and he warned the vestry how they

lent themselves to it. He did hope they would agree with him in the adoption of the report; and, whatever might be the result, resist in their new contract with the Imperial Company any restrictive clause whatever. (Hear.)

The amendment was ultimately withdrawn, and the report was adopted.

The following report was then read as to the application from the Western Company:—

"St. Marylebone, Nov. 8, 1851.

"At the gas committee; present, Mr. Jonathan Soden (in the chair), Messrs. Ward, George, D'Iffanger, jun., Hodges, M'Evily, Simmons, Pritchard, Swaine, Bousfield, Turner, Capps, Heyliger, Humfrays, and Timms. The committee having met, and considered the several communications referred to them, report—

"That the application made by the Western Gas Company, dated the 24th of October ultimo, to lay down the mains over the ground now occupied by the Chartered Company, be granted upon the same terms imposed upon the Equitable Company, because the Western Company, being unrestricted by the existence of penal bonds to other companies, are in a condition to extend competition to other parts of the parish.

(Signed) "Jonathan Soden, Chairman."

This was met with strong opposition, and was ultimately postponed for consideration next Saturday, to come up as first special business.

The vestry, after an unusually long sitting, then separated.

Vestry Meeting, Nov. 15.

Prior to the adoption of the report of the committee, recommending the admission of the Western Gas Light Company to lay down their mains throughout Oxford-street and that portion of Marylebone now lighted by the Chartered and Equitable Gas Companies, a deputation waited on the vestry from the Gas Consumers' Protection Committee, to present a resolution, passed at a meeting, stating that it was their opinion that the exclusive right, claimed by the Imperial Company, to supply certain districts of the parish, was unjust, and demanded the opposition of the vestry; and they further pressed on the attention of the board the necessity of devising a comprehensive plan, by which the whole of Marylebone might have a full, free, and fair competition in gas.

Mr. M'Dowall, who attended to support the resolution, spoke in strong vituperative terms of the Imperial Company, who, he said, Mr. George, a member of the vestry, told them plainly, would not give way one inch in their present charge of £3. 11s. for the public lights. He said, notwithstanding the tightness of their grasp over the parish of Marylebone, eight out of 10 in the district in which he resided were quite prepared to put up with naphtha or any other inconvenience in the shape of light, to break down the monopoly. He was insinuating that the Imperial compelled the use of their own meters that they might surreptitiously charge for gas which was not consumed, when

Sir James Hamilton rose to order. He was not connected with any company; but he would ask the chairman if it was justice or equity that such attacks should be made against a company not present to defend themselves? (Hear, hear.)

The Chairman called Mr. M'Dowall to order; and he proceeded to contend that, at Sheffield, gas was supplied to consumers at 2s. per 1000, and therefore they ought to have it in Marylebone at 3s. 6d. per 1000, which would save the parish £15,000 a year.

In answers to questions from Messrs. Whitmore, George, and other members of the vestry,

Mr. M'Dowall said he could not suggest any particular plan to the vestry by which to carry out the object of having gas complete all over the parish. He could not tell if it was really the intention of the Western Company to go all over the parish. The Gas Consumers' Association amounted to about 100 members, and they were quite ready to burn naphtha, or put up with any inconvenience, to get competition.

Mr. Soden wished to know if the vestry clerk had communicated the resolution of the vestry to the Imperial Company, and, if so, had they replied?

Mr. W. E. Greenwell (the vestry clerk) said he had written the following communication to the Imperial Company, which he would now read, together with the reply. He then read the following:—

"Court-house, St. Marylebone, Nov. 10, 1851.

"Sir,—Your communication of the 31st of October ult., relative to the terms upon which the Imperial Company were prepared to renew the contract for lighting the public lamps, having been attentively considered by the committee to whom the subject was referred, they have reported thereon to the vestry, and I am now directed by the board to inquire whether the Imperial Company are willing to enter into a contract with the vestry to supply the public lamps in the district now lighted by them, at £3. 5s. per light for three years, determinable at their option at the expiration of the first or second year, and omitting the proposed clause, whereby the vestry could be called on to pay an increased price, in the event of any other mains being laid down in the same district.

"In making this communication, I may state the unanimous feeling of the vestry, that, as a public body, they ought not to be called upon by your company to enter into conditions restrictive of their independent action in the interests of the ratepayers; and more especially should not this be the case as it is required for the first time after mutual transactions of nearly 30 years. And I may mention further, that the proposal for the reduction in the price which has been paid by the vestry for the last 18 years arises from a consideration that the parish should partake of the benefits produced by the alteration in the price of iron and coals during that time, and that they should not pay a larger sum for the public lighting in the district lighted by the Imperial Company than in the other part of the parish. Requesting the early attention of your directors, I am, sir, your faithful servant, "W. E. Greenwell, Vestry Clerk.

"Alexander Henry, Esq., Secretary, Imperial Gas Company."

"Imperial Gas Light and Coke Company, 33, John-street, Bedford-row, 11th November, 1851.

"Sir,—I have laid before the court of directors your letter of the 10th instant, asking whether the Imperial Company are willing to enter into a contract to supply the public lamps in the district lighted by them, at £3. 5s. per light per annum, for three years, determinable at the expiration of the first or second year at the option of the vestry, and omitting the clause whereby the vestry would be called upon to pay an increased price in the event of any other mains being laid down in the same district; and I am instructed to state in reply, that, in taking this question into their serious consideration, the court have weighed the reasoning which in your letter follow this inquiry with the deference due to the body from whence it emanates.

"It is unnecessary now to refer to the importance the Imperial Gas Company attaches to its long and valued connection with the parish of St. Marylebone, nor to the modifications in the original contract to which they were at other times consenting and willing parties. These modifications were based upon the principle of mutual advantage, and the directors believe that, in agreeing to them, it was never for a moment contemplated by the vestry or the company that the position of the contracting parties was to be altered, pending the contract, by the admission of the mains of another company to compete for the private lights, from which alone this company could look for any return for their large outlay of capital in the parish, it being acknowledged that the lighting of the public lamps was very far from profitable.

"The Imperial Company have never calculated upon immunity from competition, but have only claimed for themselves that they should not be subject to unfair competition; that the burden of profitless public lights should not be enforced upon them in the obscure streets and districts of the metropolis, whilst a more favoured rival should be allowed to select and occupy those localities only which were remunerative.

"The vestry may remember that in 1847, when application was made by another company to light a few of the leading streets in the parish, the directors of the Imperial Company pointed out to them that it would be necessary at the same time to make provision for the lighting of the public lamps generally by the new company, as this company would not be bound to renew the contract at the present low price beyond the 31st of December, 1851; and in December, 1848, I had the honour to give the vestry written notice to that effect.

"The court of directors, therefore, in respectfully declining to enter into a contract which will bind the company to supply the public lamps on any other terms than those provided for in the existing one, and recapitulated in my last letter of the 31st ult., trust still, upon a review of the equity of the case, to have the concurrence of the vestry in the fairness and justice of their determination, and that the vestry will see that the company have not sought to impose upon them 'conditions restrictive of their independent action in the interests of the ratepayers,' but have merely claimed for the company they represent that the principle of reciprocity should not be lost sight of in the agreement.

"In reference to the concluding observations in your letter, the directors of the Imperial Gas Company do not deny, on a general principle, the influence the price of the materials employed has on the cost of gas; although that effect is often much exaggerated, as in the price of coals, a fall in which is always accompanied by a corresponding diminution in the price of coke; but they attribute the diminished price at which gas can be sold much more to a greatly increased consumption and concentration of lights on the same outlay for pipes.

"From whatever cause it may arise, the directors of the Imperial Company have been the first to proclaim the fact, by reducing the charge to the private consumers as soon as their increased profits would allow them; and the ratepayers of Marylebone, and the consumers of gas generally, in the districts supplied by this company, will have no reason to doubt a continuance of the same policy, when they reflect that, during the last 18 years (the period to which you refer), the reductions voluntarily made by the Imperial Company amount in the aggregate to more than 58 per cent., viz., from 12s. to 5s. per 1000 cubic feet; and, indeed, the company have already made known their intention to still further reduce the price to the private consumers on the 1st of January next.

"It is hardly necessary to repeat the reasons which have induced the directors to give the benefit of these reductions exclusively to the private consumers.

"The parish have, for very many years, had the public lights supplied at a price far below that at which they could be fairly afforded; as it was argued, at the time when the original contract was entered into, and where companies were petitioners for leave to lay down their mains, that some advantages should be given to the inhabitants generally, to compensate for the annoyance and inconvenience occasioned to them by the opening of the streets for the laying down and repairing the gas-pipes, for the accommodation of the few who were desirous of being gas consumers, and for the benefit of the company.

"This reason no longer holds good, the use of gas having become general; and, as already stated, the directors have considered it to be their duty to remedy the injustice which has prevailed in the unfair disparity in the rates of charge for the public and private lights.

"I have only to add that which indeed must be patent to the vestry, that the introduction of two sets of mains in the parish, where there is not business sufficient for one, must tend to prevent the price of gas reaching the lowest point which it would otherwise attain.

"I am, sir, your very obedient servant,

(Signed) "Alexander Henry, Secretary.

"W. E. Greenwell, Esq., Vestry Clerk, St. Marylebone."

A communication was then read from the Chartered Gas Company, stating that a deputation from the directors was in attendance, to present a memorial signed by 150 inhabitants of Oxford-street, praying the vestry not to admit the Western Gas Company, as they had already the advantage of the cannel gas from the Chartered Gas Company. The communication alleged that in some instances the names to the memorial in favour of the Western Company had been obtained by false representation.

The deputation from the Chartered Company had left before the time came to call them in; and a letter was read from the Western Company, denying a statement that the Messrs. Challicombe and Mayhew had ever been customers of theirs, and consequently could not have given up the use of their gas, or that any consumers of the Western gas at Knightsbridge had ever given up their supply after once taking it from them.

Mr. Mallalue begged to correct the statement of what he said, which he was sure got into the paper inadvertently, and not intentionally. What he said was, that Messrs. Challicombe and Mayhew, of Knightsbridge, who burnt from 70 to 90 lights, were about to take their gas of the Western Company, but, finding a neighbour and friend was about to give it up, would not take it; but, as to the Western

Company denying that they had ever lost a customer, there he could prove to the contrary.

A communication was read from the board of auditors, expressing their approval of the vestry doing all it could to ensure competition in gas.

After some preliminary objections on the part of Mr. Whitmore to the validity of the report recording the admission of the Western Company, and a declaration on the part of the chairman that the objections were, in his opinion, neither frivolous nor vexatious, but still not sufficient to justify him in rejecting the report being presented to the vestry,

Mr. Soden moved that the report recording the admission of the Western Company be received and adopted. In doing so, he charged those gentlemen who opposed the admission of the Western Company to compete with the Equitable and Chartered Companies with being free traders merely by profession, but at the same time aiding monopoly. They had admitted the Equitable Company to compete with the Chartered without any restrictions, and yet they wanted to restrict the Western Company from laying a pipe, unless they were prepared to go all over the parish. He contended that the vestry had no right whatever to shut out the private concerns from the advantages of competition, which they would do if they shut out the Western Company, which was the only company at all calculated to compete with the Imperial, by extending their mains over the entire parish. The parish of Marylebone owed the Western Company a debt of gratitude for having already been the means of reducing the price of gas; and, having opened the door to the Equitable without restriction, they were bound to do the same to the Western Company.

Mr. Beacon seconded the resolution, and complained of the vestrymen having had anonymous letters sent to them, and, in allusion to one with the signature "Suum Cuique," he said he had received one printed document, signed "Sam Sykes." (Roars of laughter.) He also had to complain of anonymous speeches in the vestry—("Hear!" and laughter)—for he called them anonymous speeches, when gentlemen got up and made statements affecting the character of a young company like the Western, without giving the parties' names. (Hear.) He charged the vestry with base ingratitude to the Western Company, and those who opposed it with having "free trade" on their lips and not in their hearts. He called upon the vestry to use its common sense, and do justice to the private consumers by the admission of the Western Company.

Mr. Mallalue moved, and Mr. Baddely seconded, the adjournment of the debate till next Saturday, which was put and negatived.

Dr. Russell objected to the report, on the ground that the Western Company had not acted fairly in the matter, in not attending at the time to the advertisements which were in the papers for the gas contracts, but waiting until the Equitable had taken the public lights, and then endeavouring to get in and take all the pith and cream of the parish. The vestry, he contended, would not be doing their duty unless they took steps for giving gas competition to all the consumers, which could not be done unless they had a pledge that companies should go all over the parish. He considered the Western Company was only looking to its own selfish interests, and not the public benefit, and that the vestry would be committing a breach of good faith with the Equitable Company if they admitted them on the terms proposed.

Mr. Whitmore took a similar view of the question, and, in addition, argued that the report could not be adopted, as it recommended that the Western should be admitted on the same terms as the Equitable, which was impossible, as the Western could not light the public lights, or now break up the roads and lay down their mains by the end of November, under the provisions of Michael Angelo Taylor's Act.

Mr. M'Evily strenuously advocated the admission of the Western Company, as being the only means by which real competition all over the parish could be secured; whilst Messrs. Botting, D'Iffanger, jun., Clement George, Hodges, Michie, and other gentlemen, as strenuously opposed it, on the ground that, if they only admitted them into the district which had already had competition between the Chartered and Equitable Companies, the ground of the Imperial Company would never be gone over, and monopoly would be preserved instead of destroyed.

On the question being put, the motion for the adoption of the report was declared to be negatived.

A division was demanded, and, in consequence of the lateness of the hour, a large number of the vestrymen had left. The numbers, however, were—

For the adoption of the report	20
Against it	29
Majority rejecting the report, and refusing to admit the Western Gas Company on the terms proposed	—9

On the motion of Mr. Hodges, a special vestry was ordered to be called, to decide the question at issue between the board and the Imperial Company.

Special Meeting of the Vestry, Nov. 19.

Thomas D'Iffanger, jun., Esq., having been called to the chair,

Deputations from the district of Christchurch, consisting of Messrs. M'Dowall, Overton, Fidey, Clarke, Nixey, and others, waited upon the vestry, to present the following resolutions, which had been agreed to at meetings held in that district:—

"At a meeting of the Ratepayers and Gas Consumers' Protection Committee, held at the Mitre Tavern, New Church-street, St. Marylebone, on Monday, the 17th day of November, 1851, Mr. Edward House in the chair—

"Resolved: That the following resolutions be forwarded to the hon. the board of vestry of St. Marylebone, at their special meeting on Wednesday next:—

"Resolved: That this committee having heard with great surprise the reply of the Imperial Gas Light and Coke Company to the hon. the board of vestry's application for the supply of gas, in which they demand the exclusive privilege of lighting certain parts of the parish for three years, and which, if complied with by your hon. board, would be the means of destroying a fair and honourable competition, and cause a serious injury to the ratepayers and gas consumers of a very large portion of the parish; this committee, therefore, earnestly call upon your hon. board, by all legal means, to oppose so unjust a demand.

(Signed) "Edward House, Chairman."

"At a general meeting of the St. Marylebone Ratepayers' Protection Association for the district of Christchurch, held at the British Stores Tavern, New-street, Portland-town, on Tuesday, November 18, 1851, Mr. Hellis in the chair—

"Resolved: That this meeting calls upon your hon. board to reject the terms proposed by the Imperial Gas Light and Coke Company, demanding the exclusive right to supply certain districts of the parish of Marylebone for three years. We look upon their communication as an insult to your hon. board, and, if submitted to, will be the means of placing a large portion of your fellow-parishioners under an unjust monopoly, and entirely contrary to the spirit of the present times. And this meeting further pledges itself to support your hon. board by all means in its power to rid the parish of the present unjust monopoly in the article of gas. (Signed) "J. Hellis, Chairman."

Mr. M'Dowall, in support of the memorials, made a similar address to that made by him on the previous Saturday, showing that the gas consumers and ratepayers were prepared to put up with any inconvenience to secure competition in gas in the upper districts of the parish.

The communication from the Imperial Company having been read,

Mr. Hodges said it was his intention to propose a resolution. The contract with the Imperial Company expired virtually on the 30th of November, and therefore it was necessary that they should act speedily. He regretted the determination of the directors of the Imperial Company to impose terms on the vestry which they could not accept if they were determined to do their duty to the parish. The restrictions proposed were such that, if the vestry assented to them, and they permitted another company to lay a pipe, would have the effect of increasing the charge for public lighting. The Imperial Company not only refused the proposal of the vestry to contract for the public lights at £3. 5s. instead of £3. 11s. per lamp, but, in order to prevent the introduction of any other company, they wished also to place the vestry in a difficult position. It appeared, however, that the vestry had something like a hold upon the company, for, by the 1st and 2nd Geo. IV., sec. 17, they could call on the company to light the parish better and cheaper than it could be lighted with oil. He thought that this circumstance, if known to the Imperial Company, would induce them to meet the views of the vestry, and relinquish any restrictions, as the surest way of disarming competition. He would move—

"The vestry regret that the Imperial Company, in their proposal for renewing the contract to light the public lamps in the district of this parish lighted by them, seek to perpetuate the former monopoly by imposing fresh restrictions upon the vestry, which they cannot entertain, and which they decline acceding to."

Mr. Soden seconded the resolution, and expressed his regret that the vestry had not admitted the Western Company, as the surest way of competing with the Imperial in that parish.

Mr. Beacon having offered a few observations, the resolution was carried.

Mr. Hodges thought it was necessary to follow this resolution up by doing something more. It was necessary that they should know as soon as possible what the determination of the directors of the Imperial Company would be upon receipt of the resolution; and he therefore moved:—

"That a deputation of six members of the vestry wait upon the directors of the Imperial Company at their board meeting on Friday next, to negotiate the terms upon which they will light the public lights for the ensuing year."

Mr. Bousfield seconded the resolution.

Mr. Beacon protested against such a proceeding altogether.

Mr. Swaine said the vestry had already received the ultimatum of the Imperial Company, and the sending a deputation to them would not only be useless, but be a succumbing by the vestry derogatory to its dignity.

Mr. Botting would not consent to the vestry bowing the knee to the Imperial Company; and, if they made any attempt to put out the public lights, depend upon it they might take their private lights away also. There was nothing to alarm them, for they had not a pipe of any other company on their ground; and, if there were the influence possessed by the Imperial Company talked of, they had no reason to fear competition.

Mr. Row opposed the resolution, which, on being put, was negatived, only two hands being held up in its favour.

Mr. Hodges said, as they might be compelled to fall back upon the price of oil, it would perhaps be advisable to advertise as to what the price of oil would be.

Mr. Swaine dared the Imperial Company to take off the public lights; and moved that the resolution carried by the vestry be forwarded to the Imperial Company forthwith.

Mr. Michie seconded this resolution, which was carried, and the vestry separated.

Vestry Meeting, Nov. 22.

Mr. Greenwell, the vestry clerk, read a letter from the Western Gas Company, asking permission to lay a pipe from their own main in the Regent's-circus, to their office in Holles-street, Cavendish-square, a distance of about 200 yards, so as to enable the directors to have a supply of their own companies' gas at their office when they required it, for testing daily, and for other purposes.

Mr. M'Evily moved that the request should be complied with. It was certainly nothing more than reasonable that a ratepayer should have the opportunity of burning a gas which he manufactured himself.

Mr. Row seconded the motion.

Mr. Clement George moved an amendment, "That a committee

of 10 be appointed." He looked upon this a side-winded attempt on the part of the Western Company to evade the resolutions of the vestry.

Mr. Bousfield seconded the amendment.

After a long and warm discussion, in the course of which the supporters of the Western Company protested against the injustice of a ratepayer not being permitted to burn gas of his own manufacture; whilst on the other side it was contended that the words in the Western Company's letter, "and for other purposes," indicated some ulterior object; and, if they granted permission to one ratepayer to have the Western gas, they had a right to grant the same privilege to a hundred if they applied for it.

On a division the numbers were—For the amendment, 29; for the original motion, 20. A committee was then appointed. The minute containing the resolution of the special vestry, held on Wednesday, to the effect "That the vestry would not entertain any contract with the Imperial Company which contained restrictive clauses," was, at the request of Mr. Kirby, the magistrate, postponed till after 12; and, after a few observations from that gentleman, as to the intentions of the vestry as to the course to be pursued with respect to their contract which was just out, the minute was put, and the resolution was confirmed unanimously.

Mr. Greenwell, the vestry clerk, read a communication from a meeting of the St. Marylebone Gas Consumers' Protection Committee, held on the previous day in St. Mary's district, congratulating the vestry on the spontaneous resolution passed at the special vestry, on Wednesday, and hoped that the confirmation might be as unanimous and general.

Mr. Michie moved that it be entered on the minutes.

The Vestry Clerk then read the following communication from the Imperial Company:—

"Imperial Gas Light and Coke Company, 33, John-street,
"Bedford-row, Nov. 21, 1851.

"Dear Sir,—I thank you for your favour of yesterday, enclosing the copy of a resolution passed at a special vestry on the preceding evening. I have laid this latter document before the court of directors to-day, and am desired to remark that there appears to be some misconception on the part of the vestry as to the terms and conditions of the existing contract, and of the company's proposal for renewing it. The contract has no restrictive clauses, except as against the company, nor do the company seek to perpetuate what the vestry are pleased to call a monopoly, by imposing fresh restrictions.

"The facts are simply these:—The old contracts, previous to 1848, contained a clause binding the company to renew them for a further term of three years, if called upon by the vestry so to do one month before their determination. The existing contract, that of the 23rd of December, 1848, contains the same clause, but so modified as only to make it compulsory on the company to light the public lamps, at the same price, for such portion of the subsequent three years as the position of the contracting parties remains the same; but provides that, should the status be altered, by the admission of the mains of any other company into the district, this company shall be released from their engagement to light at the same price, 'but shall, nevertheless, if desired so to do by the vestry, by one month's notice in writing, continue to supply the public lamps at a rate per 1000 feet not exceeding the rate at which the company shall at the time supply gas to the private consumers within the parish of St. Marylebone.'

"The court of directors by no means desire to prevent the vestry from exercising their own discretion as to the admission of competition into the district; and, indeed, they have felt, from the recent proceedings of the vestry, that no concession on their part would probably obviate such a result.

"But the court have never concealed from the vestry that the company have for very many years lighted the public lamps of St. Marylebone without a profit, which they were alone able to do from their large private trade; and they are still of opinion that, upon a calm and dispassionate review of the whole circumstances of the case, the vestry will feel that, in adhering to their policy of giving the benefit of the reductions in the price of gas which their extensive trade enables them to make to the private consumer (who is now charged at the rate of 5s.) rather than to the public lights (which pay at the rate of 3s. per 1000 feet only), the company are actuated by no other motives than those which generally govern the proceedings of fair traders in the ordinary transactions of life.

"Should the vestry decline to avail themselves of the conditions of the existing contract above referred to, the company will be happy to send in a tender adapted to the altered circumstances of the case.

"I am, dear sir, yours faithfully,
(Signed) "Alex. Henry, Secretary.

"W. E. Greenwell, Esq., Vestry Clerk, St. Marylebone."

Mr. Soden said he would move that this document be entered on the minutes. He thought there was a vast amount of ambiguity in this communication, and, to say the least of it, it was very mysterious. Instead of the Imperial Company talking of their extensive business, they ought to use the term extensive privileges in that parish. The only construction he thought the vestry could put upon the last paragraph was, either that they were prepared to offer terms in accordance with the resolution of the vestry, or to charge the ordinary price for the article they were charging private consumers. There was no kindness on their part for the latter, for that they were compelled to do, or else charge no more than the lamps would cost for oil lighting. If the company had lost by the vestry, it was quite clear that they had gained by the parishioners of Marylebone; but, if they were now to be supplied by measure and value, it was necessary, as the time was short, that the vestry should know what they were to do.

This motion, having been seconded by Mr. Row, was carried.

Mr. Clement George complained that, after 20 or 30 years' connection, the Imperial Company should attempt to thrust any restrictive clauses on the vestry. The question, however, on the part of the vestry, was now one merely of price, and that might be settled by a deputation. He moved that a deputation of five wait on the directors of the Imperial Company, with power to treat as to price, but with the understanding that no restrictive clauses should be permitted, and that the contracts should be annual.

Dr. Russell seconded the motion.

Mr. Soden opposed it, and contended that it would be far better to have any communication with the company in writing than that either five or 15 members as a deputation should wait on the company.

Mr. Beacon also in strong language opposed the deputation.

Mr. Hodges regretted the special vestry had not carried his motion for a deputation on Wednesday, but he admitted that he thought the time had now gone by for all negotiation with the Imperial Company.

Mr. D'Iffanger, jun., hoped that no deputation would be appointed, as there was an impression out of doors that the Imperial Company had great influence over the vestry of Marylebone. At all events, let the ratepayers see that that was not the case with the present vestry.

Mr. Whitmore thought the vestry ought to be quite regardless of what was said out of doors when they had a duty to perform. (Hear.) He thought the Imperial Company appeared to invite negotiation, and they said they would be happy to send in a tender. He thought the vestry had assumed too much independence, and, as it were, cut off their own noses to be revenged on their faces in this matter. He deprecated the harsh language and opprobrious epithets which were made use of against the Imperial Company, who only did that which all other trades did—tried to get the best price they could for their article. The vestry were there to make the best bargain they could for the parish, and the directors of the Imperial sat at their board to do the best they could for their shareholders, and the best way for the vestry, instead of abusing and traducing them, was to send a deputation, and meet them like men of business. ("Hear," and "No.") It was far better than to hear gentlemen get up there and charge the Imperial Company with acts of dishonesty. (No, no.)

Sir James Hamilton certainly thought, as the Imperial Company were the traders, and the vestry their customers, the company ought to come there.

Mr. Simmons deprecated the attempt to send a deputation to the company, when it had been defeated several times in the committee and vestry.

On the question being put, the motion was lost.

Mr. Nicholay moved for the appointment of a committee to make the arrangements with the Imperial Company for lighting the parish, and in doing so said, if the Imperial Company had been overhauled, it was certainly their own fault in endeavouring to maintain the monopoly, and, although it might be cutting off their noses, he hoped the vestry and the parish would resist them.

The Chairman said he had taken the advice of the legal gentleman beneath him, and he could not receive the motion, as it was illegal for any commit ee to contract on behalf of the parish.

Mr. M'Evily then moved a resolution to the effect that the vestry clerk write to the Imperial Company, to say that the vestry were ready to receive their tender in accordance with the altered circumstances, but declined to enter into any contract on the basis of the company's letter of the 21st instant.

Mr. Humphrays seconded this, but it was ultimately withdrawn, to make way for an amendment submitted by Mr. Lewis,

"That the Imperial Company be requested to tender for the public lights on the terms of annual contracts, without restrictions."

This was seconded by Mr. George, and carried unanimously, and the vestry then separated.

Special Vestry Meeting, Nov. 26.

Thomas D'Iffanger, jun., Esq., having been appointed to the chair, he put the minute of the previous Saturday for confirmation.

Dr. Russell wished, before the question was put, to ask a question. It appeared to him, if he understood the matter rightly, that there were two courses open to the vestry. The first was to give notice to the Imperial Company, on Saturday next, that they would renew their present contract at £3. 11s. per light; and the second was, if they admitted another company, that then they should pay the company the price at which they were charging the private consumers for the public lights. Now, the question was, whether it would not be best to give the one month's notice on Saturday next, and wait until they could get another company to come into the district. He believed he had stated their position correctly.

Mr. Greenwell, the vestry clerk, said he thought that, generally, Dr. Russell's statement was correct. If the vestry, on Saturday next, gave one month's notice to the Imperial Company, they could compel them to light at £3. 11s. per lamp, the same as heretofore, for three years, or for so long a time as the Imperial Company shall be the only company in that portion of the parish now lighted by them. Should the vestry admit another gas company, then they could charge for the public lights the same price at which they were then charging the private consumers. In the event of the vestry not giving any notice at all to the company next Saturday, then any future contract must become a matter of negotiation between the vestry and the company as to what price the public lamps should be lighted at.

Mr. George said there were restrictive clauses in the proposed new contract which the vestry had repudiated, and therefore any contract which the vestry entered into could only be binding as to price. But the question was, if they admitted another company, would they be bound to pay the extra price to the Imperial for the whole term?

Mr. Swaine said he believed, if the vestry only allowed one inch of another company's pipe to be laid down in the Imperial district, then they could charge the price they were charging for the private lights the whole three years.

Mr. Greenwell wished to correct this, supposing the vestry to enter into a new contract on the same terms as the present. If the vestry admitted another company into the parish the contract would then be broken. Then it would be competent for the vestry to give the company a further one month's notice for a new contract.

Dr. Russell would try to put another question to elucidate the point. If the vestry admitted another company, he understood the Imperial had the power of charging them 4s. 6d. per 1000 feet, which would be £5. 6s. 6d. per public light per year, instead of £3. 11s. Now, could they inflict the larger sum for the whole unexpired period of the three years then remaining, or were the vestry at liberty to call a new contract?

Mr. GREENWELL: The vestry have power to call upon the Imperial Company to enter into a further contract to light at some other price, and are not compelled to pay the high price unless they please.

Mr. GEORGE wished to call the attention of the vestry clerk to the clause of the Imperial Company's act with reference to lighting by oil. He did so because there was great difference of opinion upon the point.

Mr. GREENWELL said there was a clause in the Imperial Company's act which compelled the company to supply the public lamps with gas of a better quality than oil, and at a cheaper price. As to whether the vestry could carry out that act of Parliament required great consideration.

Mr. GEORGE: It is not very clear.

Mr. GREENWELL: I don't say it is not very clear, but the clause requires consideration.

The CHAIRMAN said the vestry clerk would read the clause, but, for obvious reasons, he would not explain his views upon it in vestry.

Mr. GREENWELL then read the 17th section of the Imperial Company's act of Parliament, 1st and 2nd Geo. IV., cap. 117:—

"Provided always, and be it enacted, that the said company shall, and they are hereby directed and required, to supply all the public streets, squares, highways, &c., &c., within the limits of this act, which shall be lighted under or by virtue of this act, with gas of such quality as shall at all times afford a cheaper and better light than could be obtained from oil lights; and whenever the said company shall fail so to do, the power and authority hereby given to the said company to break up the soil of any such street, highway, or place, within the limits of this act of Parliament, shall from thenceforth cease and determine, and every contract or agreement which shall be entered into for lighting with gas any public street, square, market-place, highway, &c., by the said company, shall contain a clause providing that it shall be obligatory on the said company that the same shall at all times be better and more cheaply lighted by the said company than would be done by oil lamps."

Mr. SODEN believed it would be impolitic for the vestry clerk to give a legal opinion on that clause, but at the same time it would be wise on the part of the vestry to ascertain what would be the cost of oil lamps.

Dr. RUSSELL thought, under all the circumstances, the most advisable course would be to give notice pro forma, on Saturday next, to renew the present contract at £3. 11s., and then wait till they could bring in another company.

Mr. GEORGE said that, inasmuch as not only the committee, but the board of vestry, had determined that they would not enter into another contract with restrictive clauses in it, in justice to the ratepayers they could not now consent to any such proceeding. These were the altered circumstances which, no doubt, had induced the company to offer a fresh tender; but it was well to state, in the event of refusal, steps had been adopted so that the parish should not be left in darkness, and higher prices would not be allowed.

Dr. RUSSELL denied any intention of wishing to continue restrictive clauses.

Mr. D'IFFANGER, sen., said, if the vestry did not do something on or before next Saturday, then their contract died a natural death, and the parish would be left at the mercy of the company. (No, no.)

Mr. HODGES said, with reference to the clause which had been read, compelling the Imperial Company to light better and cheaper than oil, he thought there could be but very little difference of opinion as to the real construction to be put upon that clause of the act of Parliament in the mind of any sensible man. It was divided into two parts. The declaratory—"That the company should be compelled, within the limits of the act (and Marylebone was a part of those limits), to light with gas of such quality as shall, at all times, afford a cheaper and better light than oil lights." And then the penalty—"And whenever the said company shall fail so to do, the power and authority to the said company to break up the soil of any such street, &c., should cease and determine." Now here he thought the vestry had got the Imperial Company, and, if they refused to do so, then the vestry had the power of putting this act of Parliament in force against them. Therefore, as there would be no contract after the 30th of November, then, he thought, there could be no doubt that the vestry could call upon the company to light the public lights with gas better and cheaper than oil.

The CHAIRMAN said it would be difficult now to find gas that was not better than oil.

Mr. HEYLIGER, Mr. SIMMONDS, and one or two other gentlemen, having offered a few observations, the resolution for confirmation was put and carried unanimously.

VESTRY MEETING, NOV. 29.

Mr. GREENWELL, the vestry clerk, read to the vestry the following communication from the Imperial Gas Company, in reply to the resolution of the vestry, passed last Saturday, and confirmed at the special vestry on Wednesday, to the effect, "That the vestry would accept a tender on annual contracts, and without restrictive clauses:"—

"Imperial Gas Light and Coke Company, 33, John-street, Bedford-row, Nov. 28, 1851.

"Dear Sir,—I have laid your favour of yesterday, with copy of the resolution of your vestry of the 26th inst., before the court of directors to-day, but they feel a difficulty in replying to it, inasmuch as no intimation has been given by the vestry of their determination not to avail themselves of the clause in the existing contract which empowers them to call upon the company to renew it under certain conditions. I am, however, desired to say, that if no notice to continue the existing contract be received to-morrow, the court will be prepared to send in a tender on Monday. I hope this trifling delay will not be attended with any inconvenience to the vestry.—I am, dear sir, yours faithfully,

"ALEXANDER HENRY, Secretary.

"W. E. Greenwell, Esq., vestry clerk, St. Marylebone."

Mr. GEORGE said, how the Imperial Company could make any mistake as to the intentions of the vestry from the resolution which had been forwarded to them, he could not imagine. In order, however, that there should be no mistake now, he begged to move the following resolution:—

"That the board do not consider it desirable to give notice to renew the existing contract with the Imperial Gas Company, inasmuch as it would contain a restrictive clause, which the board deem arbitrary and unnecessary, especially because in the existing contract there is no such clause."

Mr. SWAINE seconded the resolution.

Mr. SODEN wished to hear the letter which the vestry clerk had sent to the Imperial Company accompanying the last resolution of the vestry.

Mr. GREENWELL said his letter was to the following effect:—

"Court-house, St. Marylebone, Nov. 27, 1851.

"Dear Sir,—I herewith enclose you a copy of a resolution of the vestry, adopted upon consideration of your communication dated the 21st instant, and I am desired to remind the company that the public lamps in the district of the parish not lighted by them will, after the 31st December next, be supplied with a four-feet batswing burner, at £3 per lamp.

"I am, dear sir, yours faithfully,

"W. E. GREENWELL, Vestry Clerk.

"Alexander Henry, Esq., Secretary, Imperial Gas Company."

The resolution was carried unanimously.

In answer to a question, the CHAIRMAN said it would be necessary to have a special vestry to confirm this minute before this resolution could be forwarded to the company; and, on the motion of Mr. GEORGE, it was resolved to hold a special vestry to confirm the resolution.

A memorial was read from the "Marylebone Gas Consumers' Company," signed by Benjamin Shaw, William Eales, George Hinton Bovill, William Yates Freebody, and Henry Thoby Prinsep, as five provisionally-registered directors of the said company, stating that the object of that company was to supply the whole of the parish of Marylebone with pure gas on more advantageous terms. It stated that 3200 gas consumers of Marylebone had signed contracts to take their gas for three years, and that 600 more had made verbal promises to do so. From this source, at the proposed price of 4s. per 1000 feet, there would be more than sufficient to provide for the payment of 10 per cent. on the capital, after liquidation of the cost of manufacturing the gas, and the usual expenses of the company. They had made preliminary engagements with contractors for the construction of the works, and they prayed the vestry to grant them permission to come in and lay their mains; in the month of March next they pledged themselves to lay their pipes, subject to such conditions as the vestry might think proper to propose, so as to light the public lights all over the parish by the 1st of September, 1852.

Mr. HOLMAN, the solicitor to the company, attended with another gentleman as a deputation. He said he had nothing to say, unless the vestry wished to ask him any questions.

Mr. FREWIN wished to know if this new company had obtained ground to build their works upon.

Mr. HOLMAN: There have been several spots offered, but I do not feel at liberty to mention where they are.

Mr. GEORGE: The works must be erected beyond 500 yards of the boundary of this parish.

Mr. ADAMSON: Pray is this Marylebone Gas Consumers' Company incorporated?

Mr. HOLMAN: No; it is provisionally registered.

Mr. ADAMSON: How many shareholders have you got?

Mr. HOLMAN: I could tell, but I don't think it advisable to do so at present.

Mr. D'IFFANGER, jun., wished to know if the company were prepared to compete with the Imperial Company, but the Chairman decided the question to be irregular.

By Mr. HODGES: It is our intention to take our mains throughout the whole parish.

Mr. GEORGE: And you would put in a tender to light the public lights at £3.

Mr. HOLMAN: I am not, as a solicitor, in a position to say that.

Mr. HODGES: You are aware, I suppose, that by a resolution of this vestry there is a bond of £20,000 required against amalgamation?

Mr. HOLMAN: We could not amalgamate. This company is founded upon the principle of a mutual company, and therefore it is utterly impossible it could be amalgamated with a proprietary company.

The deputation having withdrawn, on the motion of Mr. CLEMENT GEORGE the memorial was referred to a committee.

SPECIAL VESTRY, DECEMBER 3.

A special meeting of the vestry was held this evening, at the Marylebone Court-house.

Dr. Russell having been called to the chair, Mr. W. E. GREENWELL, the vestry clerk, read the following communication and tender from the Imperial Company:—

"Imperial Gas Light and Coke Company, 33, John-street, Bedford-row, Nov. 29, 1851.

"Dear Sir,—The court of directors have had before them the resolution of the vestry of St. Marylebone, under date the 26th inst., requesting the Imperial Gas Company 'to tender for lighting the public lamps on annual contracts, and without restrictions upon the vestry,' and I am consequently instructed to tender, on behalf of the company, to light the lamps in question through the four-hole flat-topped burner at present in use, consuming four cubic feet of gas per hour, at the rate of £4. 8s. 6d. per light per annum, and through the batswing burner, consuming five cubic feet per hour, at the rate of £5. 5s. per light per annum, including, in both cases, the painting of the posts, columns, and lantern irons once in the year, and keeping the lamps in repair. The lamps to be lighted at sunset, and kept alight to sunrise. The accounts to be paid quarterly.

"The company have adapted their tender to the altered state of their connection with the parish, and have made their calculation upon the basis of the price of 4s. per 1000 cubic feet for the gas. This is the lowest price at which the directors feel that they would be justified in undertaking the lighting, having in view the determination of the vestry to introduce an opposition company into the district, without reference to the question whether it has not always been and is not now supplied with gas by this

company at a lower price than it could be supplied were there two capitals and two companies to divide the business.

"The Court of Directors are aware that it is the exclusive province of the vestry to decide upon this matter, and they have cheerfully conformed to the desire of the vestry, to receive a tender from them on the above understanding. In making this tender, however, the court hope they may be allowed to place on record the fact, that, during the long period of their business connection with the parish of St. Marylebone, the public lamps have been lighted by this company at a lower price than in other districts where competition existed, and the private consumers have had the benefit of competing prices, without the inconvenience attendant upon competition, by the constant breaking up of the street for the purpose of laying down and repairing pipes, and searching for escapes of gas.

"As the company cannot look back to their long connection with the parish without feelings of deep regret that it should now be disturbed, notwithstanding every effort on their part to render it mutually advantageous, by dividing with their customers (by reduction in the price) the profits which the company have from time to time been enabled to make, from the extension of their business in other parts, as well as in St. Marylebone, and which they venture to affirm has kept the price of gas in Marylebone, both for public and private lights, lower than it would otherwise have been, they desire me to add—

"'That, should the opposition contemplated by the vestry (and which would necessarily render a portion of the capital of this company in this parish unproductive) not take place, the company will at the end of the year return the amount of the difference between the late contract price and the present tender, so as to place the parish in the same position as heretofore in respect to the price of the public lights.'

"I am, dear sir, yours faithfully,

(Signed) "ALEXANDER HENRY, Sec."

The VESTRY CLERK, in answer to a question from Mr. Soden, said the increase from £3. 11s. to £4. 8s. 6d. would be a total increase for lighting the public lamps of £2660; but the latter part of the communication stated that, should the opposition not take place, the company would, at the end of the year, return that excess in charge, so as to place the vestry in the same position as heretofore with respect to the price of the public lights.

Mr. SODEN could not help expressing his surprise at this tender, the acceptance of which he believed there was not one man in that vestry bold enough to move. (Hear, hear.) He looked upon the tender as an insult to the common sense of the vestry, and could not have believed the Imperial Company would have been guilty of so great an act of impolicy. The tender was still an attempt to impose a restrictive clause, by holding out a premium to the vestry not to admit another company. But, even if they offered the public lights for nothing, the vestry could not after their resolution, in justice to the private consumers, accede to such a proposal. If the Imperial Company had been losers by the public lights, other companies, who gave their public lamps for £3 and £3. 3s. per lamp, must be in a lamentable condition. The fact of the Imperial Company sending such mysterious communications, and keeping back their real intentions till the eleventh hour, showed, he thought, that there was a good time coming with regard to gas lighting in that parish, and that, instead of paying £4. 8s. 6d., they would get their public lamps as low as they were now lighted in St. James's by the Western Company. It was not a very easy matter for any company to lay their mains all over that great parish, but it would now be the duty of the vestry to provide themselves with a substitute for gas, or get the contracting companies to provide it till they got their own pipes laid down. (Hear, hear.) He was sure the vestry and ratepayers at large would be prepared to put up with any inconvenience rather than accept this tender. He would move—

"That advertisements be forthwith inserted in the public newspapers, inviting tenders for lighting the public lamps in that part of the parish of St. Marylebone now lighted by the Imperial Gas Company, with gas for a period of twelve years, the contract renewable, at the option of the vestry only, every three years, from the 31st of December next; the parties tendering to name a time at which they will be prepared to light the parish with gas, and give security, in the meantime, for lighting all the public lamps in the said portion of the parish with oil, naphtha, or some other substitute satisfactory to the vestry."

Mr. ROW seconded the resolution, and hoped the vestry would show the Imperial Company that that independent board were determined not to submit to oppression, but were determined to carry out the good work of destroying the gas monopoly.

Mr. CLEMENT GEORGE looked upon this tender as a gross insult to the vestry, and that act alone, if no other, would call into existence an immediate rival to the Imperial Company, and induce the vestry to afford any and every company facilities for coming in to give a supply at the rate of 4s. per thousand feet. Indeed within that half hour he had been informed, on official authority, that a company with which the vestry had recently had dealings would be prepared, in the course of a few months, to go over, if the vestry wished it, the whole of the parish of Marylebone on that (the southern side) of the New-road. (Hear, hear.) It was only therefore for the board to show a bold front, and invite companies to come in and light Marylebone, and they would do it, and in the meantime they must light the public lamps with some other material as a substitute. (Hear, hear.) He could not agree with the three years' contract proposed by Mr. Soden, as the vestry had laid down as a principle annual contracts, and, having made an annual contract with the Equitable, they were bound to do so by all other companies.

The CHAIRMAN here stated that Mr. Alexander Henry, the secretary of the Imperial Gas Company, was in attendance, if the vestry wished to put any questions to him as to the tender.

Mr. WHITMORE moved, and Mr. D'IFFANGER, jun., seconded, that the secretary to the Imperial Company should be called in, which, after a few observations from Mr. Kirby, the magistrate, Mr. Swaine, Mr. Simmonds, and Mr. Hodges, was carried.

Mr. HENRY, having answered one or two questions put to him, said the Imperial Company, in their transactions with the vestry of St. Marylebone, had ever endeavoured to conduct their business like traders, being contented with a fair profit. But, from the reports of the proceedings of the vestry, the company he had the honour to represent were not aware that they were the objects of so much attention in the Marylebone vestry, although the terms applied to them by some of the members were not very complimentary. By some they were represented as "base monopolists," and others said they were "rogues." (Loud cries of "No, no.") Well, he had understood it was so, but he was very glad to find the vestry repudiated such expressions. They desired to deal fairly and equitably, and he was free to confess that the Imperial Company laid down the mains in Marylebone to obtain a fair profit from the consumers, and they had lighted the public lamps of Marylebone at many thousands of pounds loss for many years. Under existing circumstances they had raised the price of the public lights, but they had already lowered the price to the private consumers; and, so far from the Imperial Company being exorbitant in their demand, he begged it to be borne in mind, that, with the exception of the last two occasions, the Imperial Company had been the first to reduce the price of gas. They had always done so whenever the state of their profits enabled them to make such a reduction, and that not forced upon them by competition, clearly showing that they were not the arbitrary and exorbitant company they had been represented. As to restrictive clauses against the vestry, the Imperial Company never had one restrictive clause against the vestry, whilst, on the other hand, the contracts were one-sided against the company, as the vestry could compel them to continue the contract for six years at one month's notice, whilst the vestry were only bound for three. He was quite aware that the course contemplated by the vestry might do a great deal of mischief to the Imperial Gas Company. It might involve them in a loss of £10,000, £20,000, or £30,000; but let the vestry look at what had taken place in the gas world within a short period. They had had notices of amalgamation between the Equitable, the Chartered, and the London Companies, and there was a bill preparing for Parliament for the amalgamation of the Great Central Gas Company and the City Company, and between the Commercial and the British Gas Companies. He did not blame them; for, with their reckless competition, it was quite certain that one or the other must be ruined, and the price of gas permanently enhanced. Now what had been the conduct of the Imperial? They had stood their ground, and would not rush into the vortex; but they had supplied their gas to the parish of Marylebone at a fair trader's profit; and he unhesitatingly declared, that, were it not for the large business the Imperial Company possessed outside the parish of Marylebone, they would have been wholly unable to have supplied them at the price they had done. Depend upon it, if a company came in to light the parish of Marylebone, no long period would elapse before it would be in the position of some other companies. He knew they all held out great promises, but look at the results. The London Gas Company issued their prospectus as a consumers' company in 1833, with a promise of new lights and patents, and all the accumulation of wisdom which other gas companies were supposed not to possess. The lights were to be reduced 25 per cent. in price, and £10 per cent. profit, as dividend, was guaranteed. But what was the fact? Why the capital of this company was £100,000, but they had spent £500,000. The shares were raised from £10 to £50, and they could be bought at £5 in the market. They had never paid a dividend at all. Then there was the Western, established under an able engineer, Mr. G. H. Palmer. They did not want the public lights at all. But the Western was to pay 22½ per cent. That was in 1844; but what was the fact now in 1851? Why, their works were mortgaged, and, instead of 22½ per cent., they had never paid a farthing dividend, and their shares were worth nothing. Added to this, there had been four or five Marylebone gas companies, besides the Sun, the Universal, and West Middlesex, and—but, perhaps, he ought not to say much about the new Marylebone company. They had put forth a statement as to the large number of consumers who had promised to take their gas. He (Mr. Henry) begged to inform the vestry that there were a very large number of kind customers of the Imperial in Marylebone, whose opinions had been tested, and who would remain with them under any circumstances. But who were the gentlemen who came there and called themselves the "Marylebone Gas Consumers' Company?" Why, four or five gentlemen from the City and other parts. But did the vestry suppose they came merely to get up a Gas Consumers' Company for the benefit of the parish of Marylebone? And what was the conduct of these men? They did not act fairly, or like men of business; they first went to the customers of the Imperial, and endeavoured to make them dissatisfied, and then came to the vestry to ask them to permit them to lay down pipes, having no works to lay them from. And what did these gentlemen ask for? Why, they asked for that very monopoly (in calling upon the private consumers to sign contracts with them for three years) which the Imperial Company were accused of doing. They had, as the representatives of this new company, Mr. Holman, Mr. Prinsep, Mr. Yates Freebody, and one or two others, and they applied to lay pipes down in the parish of Marylebone, having no works, and no pipes, and no capital. He (Mr. Henry) had sent on the previous day to the registration office to see, and he had ascertained the fact that this "Marylebone Gas Consumers' Company" had neither any capital nor any shareholders. They had nothing. Well, then, what did they do? Why, they went round to the consumers of Marylebone, and they said, "We want you to give us the money, and then we will supply you with gas." So said the London, and so said the Western, and even the Equitable, at the outset of their career. Now, he would put it to the vestry, was that fair, was it honest, or was it a reasonable mode of doing business? He would even take the Equitable, which lighted one of the best districts of the metropolis, and only paid 2½ per cent., and the £50 shares in which could be purchased for £27. (A Voice: What are the Imperial at?) He was happy to say they stood at £68. But how was it? That was through the judicious management of the Imperial Company. It was, unfortunately, too much the habit of new companies to pay, for the sake of appearance, their first dividends out of their capital, and that

was the case with the Imperial at its outset; but, in consequence of a resolve amongst the shareholders, after he (Mr. Henry) became connected with the Imperial, 25 years since, not to divide amongst them any portion of the profits until the money abstracted from the capital was replaced, they were enabled ultimately to divide 4 per cent., 4½ per cent., 5 per cent., and now they paid 6 per cent. He mentioned these facts to show that a company coming into Marylebone would be sure to pay no dividend at all.

In answer to further questions, Mr. Henry stated that he did not put the same construction as the vestry appeared to do on the 17th section of the act of Parliament, about giving a better light than oil, and cheaper. It meant that they were bound to give a light, the relative proportions of which to oil should be better and cheaper where the company had a contract.

Mr. Soden said it was perfectly ridiculous to suppose that the vestry were to ask a company whether the price they charged paid them or not. The price lately paid was £400 more than the cost of lighting by oil.

Mr. Henry denied this, and reminded the vestry that, when they first contracted with the parish, there were about 6500 oil lights, and the expense was between £9000 and £10,000 per annum. When gas was introduced there were 2400 lamps supplied, at a cost of £10,690. But there were now more than 3000 lamps, and the charge was less.

Mr. Clement George asked what was meant by a fair trading profit?

Mr. Henry replied that no new company could come in and get a fair trader's profit; nor could the Imperial, but for their business elsewhere, considering the outlay.

Mr. Clement George: Ah! you allude to when mains cost £15 per ton, and now they can be had for £6 per ton.

Mr. Henry: That's the way gentlemen run on. Our mains never cost any such price. We purchased some, no doubt, at £8 and £9 per ton; but the large pipes we have had of late cost us only £6 and £5 per ton.

Mr. Kirby expressed his conviction that the vestry were in great difficulty, and that the possibility was that, at 12 o'clock on the night of the 31st of December, the parish might be in darkness.

Mr. M'Evily said this apprehension was a mere shadow. The Imperial Company had not the slightest intention of putting out the public lights.

Mr. Poland suggested that the tenders should be divided, as one company might, perhaps, tender for one portion, and another for another portion of the parish.

Mr. Swaine suggested an amendment, that the tenders should be for the whole or any portion of the parish, and ultimately a committee was appointed to draw up a resolution, which was submitted by Mr. Soden, who adopted it instead of his former one, as follows:—

"That advertisements be forthwith inserted in the public newspapers, for tenders to light the public lamps with gas, in the whole or any part of the district now lighted by the Imperial Gas Company, for three years, such tenders to be delivered at the Court-house, on or before the 20th of December instant. The parties tendering to state a time when they will be prepared to commence lighting, and to enter into securities for the due performance of the same."

Mr. Burden objected to the words "or any part," on the ground that no company would tender for St. John's-wood, and hence the whole of that district might be left in darkness.

The amendment was seconded, but was negatived, and the amended resolution was carried with but three dissentients, thus rejecting the tender of the Imperial Company.

Vestry Meeting, December 6.

At the ordinary general meeting of the vestry, held this day, Alfred Daniell, Esq., in the chair,

Communications were read from the Gas Consumers' Protection Committee, urging the vestry to accede to the terms of application of the Marylebone Gas Consumers' Company, believing them to offer greater advantages than any other company.

Mr. Greenwell also read the following important communication from the Imperial Gas Company:—

"Imperial Gaslight and Coke Company, 33, John-street, Bedford-row, December 5, 1851.

"Dear Sir,—The court of directors have observed in this morning's paper an advertisement for tenders for lighting the district of St. Marylebone at present lighted by this company, from which they conclude that our tender has not been accepted. Should this be so, I am desired to request that you will be good enough to give me notice of its rejection, as soon after the meeting of your vestry to-morrow as possible, to enable us, as an act of justice to the company's servants, to give immediate notice that their service will not be required to light the lamps after the 31st instant, when our present contract will expire.

"I am, dear Sir, yours faithfully,

"Alexander Henry, Secretary.

"W. E. Greenwell, Esq., Vestry Clerk, St. Marylebone."

Mr. Clement George said he would move—

"That the tender of the Imperial Company and this letter be referred to the committee appointed to consider the application of the Gas Consumers' Company, with power to negotiate and confer for lighting the public lights for the ensuing year, and to report to the vestry thereon."

Mr. Row seconded the resolution.

Mr. Ashton Yates expressed his conviction that the best course for the vestry to pursue would be, if only temporarily, to make terms with the Imperial Company, as the breaking up of the roads had a great effect on the bones of aged inhabitants like himself.

Sir James Hamilton begged to ask what answer did the vestry intend to send to this letter of the Imperial Company, as their gas was to be cut off on the 31st of December?

Mr. Lewis protested against committees having the power of negotiating.

Mr. Charles Elliott said that, in about three weeks, unless some determined steps were taken, the parish would be in the dark. (No, no.) It was perfectly ridiculous to talk of admitting or entering into a contract with the Gas Consumers' Company, seeing that they had not an inch of gas to give the parish. It was perfectly ridiculous to expect anything from that company, which had no works and no money. If they depended on that they would be left in the dark. The best plan was to accept the offer of the Imperial Company for another year. (No, no.) Then he did not know what else could be done.

Mr. Grote suggested the propriety of taking a legal opinion as to the construction to be put upon the 17th clause of the Imperial Company's Act, so that the vestry may not run the risk of the parish being left in darkness.

Mr. Hodges agreed that it would be advisable to take such a course, but thought that the vestry might safely trust the matter in the hands of the gas committee, and be sure they would take such steps as to prevent the parish being left in darkness on the 1st of January next.

Mr. Kirby blamed the committee, which had been sitting so long, that they had not turned their attention to the legal construction of that act of Parliament, which might only apply to where the company had a contract. He was afraid they might now have let the time go by.

Mr. Soden, Mr. Simmonds, Mr. Nicholay, and one or two other gentlemen having spoken, Mr. George replied, and the resolution was carried unanimously.

GREAT CENTRAL GAS CONSUMERS' COMPANY.

Wednesday, Nov. 26.

An extraordinary general meeting of the proprietors in this undertaking took place at twelve o'clock this day, in the City of London Tavern, for the purpose of authorising the directors "to borrow, on mortgage or bond, such sum or sums of money, not exceeding the amount which the company, by its special act of Parliament, is authorised to borrow on mortgage or debenture, as the said general meeting shall by an order authorise to be borrowed." There was a large attendance of directors, but the number of shareholders present did not exceed 19—a circumstance which caused some dissatisfaction, it having been alleged that the hour of meeting was inconvenient to men of business, and that sufficient notice was not given to the proprietors.

Mr. Dakin, chairman of the board of directors, presided. He said that the paucity in the numbers present was, perhaps, as great a compliment as could be paid to the directory, for the absence of the shareholders showed, in his judgment, the complete confidence they reposed in the board. Indeed, the last general meeting had taken place so recently, and the position and policy of the company was so fully discussed on that occasion, that the shareholders, no doubt, were prepared to give their cordial concurrence to what the directors in their judgment deemed most desirable for the advancement of the interests of the company; and the cheers which greeted them at the previous meeting, and the approbation accorded to the report which was then presented, and had been since printed and circulated among the proprietors, proved that the directors received credit for faithfully and efficiently carrying out the measures which were expected from them. (Hear, hear.) At this time last year their directors were placed in this difficulty, that they had large demands on them for the supply of gas, which, in the then crippled and imperfect state of their works, they were unable to meet. The result of this had been, as before stated, that in the present year their revenue had been a very diminished one, compared with what they would have in the forthcoming year. And, further, they had obtained the entire public lighting of the City of London; and the directors, therefore, felt that the important position which the company now occupied would depend on the complete state of their works and the proper management of their operations. They were exceedingly anxious that such a calamity as that of their producing power not being equal to the demand for their gas should not befal them again. Under these circumstances, since the last meeting the directors had taken steps for rendering their works perfectly adequate to supply any amount of gas which was likely to be required for the next year or in future. The directors had been down at the works last week, and were certainly very much delighted with the contrast which they now presented to their appearance a year and a half ago, when he had the pleasing duty to perform of laying the first stone on that barren spot. Everything wore the aspect of order and regularity. The works were going on with so much system and management, that the spectacle was quite cheering to the directors. Three of the colossal gasholders had already reared their heads, and the fourth one would be completed in another fortnight; and all the retorts and other apparatus necessary for the production of gas were in an efficient state; the steam-engines, the purifiers, the condensers, were all in duplicate; the yard mains were completed, the double set of valves were available, and every preparation was made to ensure that the City of London should be effectually and well lighted by this company, which was greatly indebted to the citizens at large, without whose co-operation it would not stand in its present position. The directors had drawn up a short report, which would be read to the meeting, in order to put them in possession of the exact business for which they had been called together.

Mr. Hardwick, the solicitor of the company, then read the report of the directors, which was as follows:—

"To the shareholders of the Great Central Gas Consumers' Company.

"Gentlemen,—You will have learned by the report of the 28th of October, which has been printed and circulated amongst you, 'that the rapid increase of the consumption of gas, caused by the reduction in price, has rendered it necessary, before the winter consumption commenced, largely to increase the producing, storing, and distributing power of the works;' and that your directors had given orders, which are rapidly approaching completion, for additional works to raise the manufacturing power to 420 millions, and the storing capacity to 800 millions, and, by the completion of the main, the distributive power to 800 millions.

"The expenditure necessary for the works now in progress are estimated at £200,806; of which £150,000 has been raised upon shares, and £25,000 has been, in accordance with your vote, raised upon the security of the company's works, under the provisions of the deed of incorporation. Under the constitution of the company's act of Parliament, it is provided that the share capital may be £200,000, with a power to borrow on debenture £66,000, on being duly authorised by a special meeting of shareholders.

"Your directors recommend to this meeting to give them authority for raising, as prescribed by the act, the whole or such part of the sum of £66,000 as they may deem necessary for the purposes of the company, which will enable them to pay off the £25,000, and discharge all claims for extension works.

"This recommendation of raising the necessary funds by debentures, instead of the issue of fresh shares, is most desirable: in the first place, by the smaller amount that will be required to provide for interest than would be required to discharge the dividend upon the like amount of stock, if created; and, secondly, by its being undesirable to issue additional shares until the valuations contemplated by the deed of amalgamation between this company and the City of London Gaslight and Coke Company shall have taken place, and the proportion of shares to be held by each company determined.

"Your directors have during the past week carefully inspected the company's works, and those in progress, and have been much gratified in observing their rapid approach to completion. When the engineer reports he will be amply prepared for the heaviest consumption which the longest night or the foggiest day may demand."

Mr. Deputy Blake rose to move the following resolution, viz:—

"Resolved and ordered, that the directors be and they are hereby authorised and empowered to borrow on mortgage, or bond, or debenture, the sum of £66,000, being the whole amount which the company, by its special act of Parliament, is authorised to borrow on mortgage, or bond, or debenture; and, for securing the repayment of the money so borrowed, to mortgage the undertaking and the future calls on shareholders, or to give bonds in the manner authorised in the Companies' Clauses Consolidation Act, 1845."

He said the report of the directors gave a lucid explanation of the necessity for providing other funds for carrying out the extensive operations required to enable the company to afford an adequate supply of gas during the winter months; and, as he understood the proposition of the directors, it was that they desired to be enabled to avail themselves of the power of borrowing conferred by their act, in order to procure a larger or a smaller sum, according as their arrangement with the City Gaslight Company might render it necessary. Therefore, seeing that the trust reposed in the directors hitherto had been fully justified by the manner in which they had fulfilled their engagements, he thought it would be unworthy of the shareholders to withdraw their confidence from them on the present occasion, and for that reason he had much pleasure in moving the above resolution.

Mr. Massey seconded the motion.

Mr. Bliss complained that due notice had not been given of the meeting. He thought that, when a resolution involving the borrowing of so large a sum was to be brought forward, a special invitation to the meeting should have been sent to every shareholder. If it had not been for a mere accident, he should have known nothing about the meeting.

Several Shareholders: Nor I—nor I.

Mr. Bliss was, therefore, of opinion that they should determine to convene their future meetings by circular, and he would make a proposition to that effect. (Hear, hear.)

The Chairman: The directors have only one object in view, namely, the success of the undertaking. This meeting has been called in the mode prescribed by the act of Parliament; and, if that mode should not answer the purpose, a personal notice shall be always sent in future.

Mr. Webber: It is by accident that any of us knew that this meeting was to take place, and, therefore, I think it would be but justice to the proprietors generally to adjourn this meeting. I have no hesitation in giving in my adhesion and confidence to the gentlemen who manage the affairs of the company; but, at the same time, I think that to call men of business together at such a time of day as this is greatly against the interests of the company. (Hear, hear.) I always find that, when a small meeting is required, the most inconvenient time is chosen for holding it. I do not accuse the directors of a desire to have a small attendance, but I would caution them against quicksands of that sort. The proper time for holding our meetings is the evening, when you can always secure a large attendance. With reference to complying with the act of Parliament, some one said—"To the strict letter of the law we bind our neighbours, but with regard to ourselves we give it a very liberal construction." Therefore I would suggest that this meeting be now adjourned, in order to bring the representatives of capital together. Count us, and you will find that there are only 19 persons outside the table. That is not a sufficient number to represent the Great Central Gas Company. (Hear, hear.) It is a positive disgrace. (Hear, hear.) I feel myself almost out of order in recognising the meeting by addressing it. I trust, therefore, we will now agree to adjourn the meeting to a convenient time. With respect to the money which it is proposed to borrow, I wish to be informed whether you have issued all the shares which the act allows? You first borrow £66,000, and then you pay off £15,000.

The Chairman: £25,000.

Mr. Webber: I suppose, then, you find the interest on that too heavy, and that you can borrow for less interest now?

The Chairman: Yes.

Mr. Webber said, otherwise it would seem a curious way of doing business to borrow a large sum to pay off a small sum, and to make two or three large contracts when one would suffice. His impression was, that when they wanted more money they should have asked for it among the shareholders, who had not yet lost their confidence in the company, and, therefore, would have willingly provided the requisite amount. He thought it was impossible for the shareholders to discuss the report right off, after merely hearing it read. It would be more business-like in future to convene the meetings by circular, and to give some intimation of the business to be done, in order that the shareholders might be prepared. To come and settle a matter of £66,000 in this off-hand way was not business-like. He would therefore move that the meeting be adjourned to some convenient evening, and that notice be given to each shareholder.

The motion having been seconded,

The Chairman said he was rather surprised at the turn which things had taken at the meeting. It was not as if the directors had come for the first time before the shareholders with a statement of the requisite expenditure. They had gone largely into that matter at their last meeting, when they explained how they were connected with the City Gas Company. If they had not entered into an amalgamation with them, then perhaps the money might be raised by issuing fresh shares, as pointed out by Mr. Webber. They required £200,000 for their works, in conformity with the original estimate of their engineer, and shares had been issued to the amount of £150,000. True, they might have issued 5000 more shares, and thus got an additional £50,000, but, if that had been done, it would have saddled the company with 10 per cent. on the whole £200,000; whereas, with the £150,000 in shares, and with the power under the act of borrowing on debentures (a financial operation, for which the present time was a favourable opportunity), they would save to the company the difference between four per cent. and 10 per cent. on the additional £50,000. Therefore, the directors thought it for the interest of the company that the necessary money should be raised by debentures and not by shares. This company was now in the act of amalgamating with the City of London Gaslight and Coke Company, and they had given notice that an act of Parliament was to be applied for; and, therefore, the directors thought it would be better, in order to enable them to supply the whole of the City, to keep the £150,000 in shares as they now stood, and to raise the rest of the necessary funds on debentures, rather than to issue more shares, before they knew the relative proportion of the shares held by this company and by the City Gas Company respectively. The directors had already placed before the shareholders the expenditure of the money which had been already obtained, namely, £175,000; and the sanction of a general meeting had been given to the directors to get £25,000 from their bankers at five per cent. to pay off the Rigbys. The directors were most anxious to have the capital account closed; and they felt, after they had extended their works and got in all their bills, that step might then be effected. And, supposing the total amount to be £200,806, then they would have provided at 10 per cent. £150,000; and at 4 per cent., or at whatever rate of interest they issued their debentures, the remaining £50,000 or £60,000 that would be required. They had calculated on a revenue of £53,000, one half of which would be profit. As soon as the capital account was closed their accounts would be simplified; and when they had the pleasure of meeting the directors again every thing would be more satisfactory. He hoped that, after all the information that had been given, the shareholders would not press for an adjournment of the meeting.

Mr. Deputy Blake agreed with what had been stated by the chairman in the outset of his remarks, that the smallness of the meeting ought to be considered rather as a compliment to the directors than otherwise, for every one had had an opportunity of seeing the advertisement. (No, no.) It could not be doubted that a much larger number than those present had seen the advertisement; and he believed that a large number had absented themselves, knowing that the business to be done was a matter of course, and rendered necessary by the state of the finances. It was quite evident that it was the most profitable course that could be proposed. It was quite clear that, if they issued an additional number of shares, they would increase *pro tanto* the tax on the income of the company; and, as a further necessary consequence, the period at which the public would realise the benefits of the reduced price would be indefinitely postponed. The shareholders had not met to promote their own interests only, for he was proud to say that the original stimulating motive for the establishment of that company had been to benefit the public at large by a reduction in the price of gas; and, if they were to postpone that great object until they had advanced more money at 10 per cent., the proceeding would be extremely selfish, and unworthy of the high character of the promoters. He thought it exceedingly desirable that of all their future meetings every shareholder should have special notice; but, under the present circumstances, he hoped Mr. Webber would withdraw his motion for adjournment.

The Chairman: My friend Webber knows my anxiety for securing a large attendance was such that I specially called on him, and asked him as a particular favour to be here.

Mr. Webber said he had every confidence in the board of directors, but trusted the meetings of shareholders would be convened in a different way in future.

The Chairman regretted that the usual mode of summoning the shareholders had not been adopted; but in future the directors would take care that the mode suggested by Mr. Webber should be put in practice. The advertisement convening the meeting had appeared three times in two of the morning papers, and twice in two others.

The motion for adjournment was then withdrawn, and the resolution enabling the directors to borrow was unanimously agreed to.

A vote of thanks to the chairman was then passed, and the proceedings terminated.

ON THE PRESERVATION OF TIMBER BY CREOSOTE.*

By J. E. Clift, Esq., of Birmingham.

In the present day, when the requirements for timber in the various mining, engineering, and other works are so great, it becomes necessary to consider carefully the best means of rendering it as durable as

* Paper read at the Institution of Mechanical Engineers, October 22, 1851.

possible, and that at the least expense; and the writer cannot think that sufficient attention has been paid to the subject by the parties most interested, from the fact that but few of the larger consumers of that article have adopted any plans for its preservation; and this fact must be the apology for bringing before the institution a paper upon a process which has been partially in use for several years.

In looking through the colliery districts it is found that thousands of loads of timber are taken green from the forests and used every year; and the greater portion is used in the pits, where, owing to damp atmosphere and increased temperature, it is rotted in a few months; whereas, with a small expense, it might be made to last for years. It may be observed also, that the railway engineers are seeking for a more durable bearing for the rails in iron sleepers, and overlooking the means of making wood, which is allowed to be the most agreeable for travelling upon, the most durable, as well as the most economical, material for the permanent way.

The plan which is the subject of the present paper is the one invented by Mr. Bethell, for the use of a material obtained by the distillation of coal-tar. This material consists of a series of bituminous oils, combined with a portion of creosote, this latter substance being acknowledged to possess the most powerful antiseptic properties. The action of this material may be thus described:—When injected into a piece of wood, the creosote coagulates the albumen, thus preventing the putrefactive decomposition, and the bituminous oils enter the whole of the capillary tubes, incasing the woody fibre as with a shield, and closing up the whole of the pores, so as entirely to exclude both water and air; and these bituminous oils being insoluble in water, and unaffected by air, renders the process applicable to any situation. So little is this oil affected by atmospheric change, that the writer has seen wrought-iron pipes, that had merely been painted over with it, and laid in a light ground one foot beneath the surface, taken up after 20 years, and they appeared and smelt then as fresh as when first laid down. By using these bituminous oils, the most inferior timber, and that which would otherwise soonest decay, from being more porous and containing more sap, or being cut too young, or at the wrong season, is rendered the most durable. This will be readily understood when it is considered that this porous wood will absorb a larger portion of the preserving material than the more close and hard woods; in fact, the soft woods are rendered hard by this process. By this means, therefore, engineers will be enabled to use a cheaper timber with greater advantage than they could use a more expensive timber uncreosoted; thus, taking the cost of a sleeper of American yellow pine at 4s., and one of Scotch fir at 3s., and then adding 1s. to the latter for creosoting, the two would be the same cost; but the former one would last, under the most favourable circumstances, not more than 10 or 12 years; and the other would be good, under any circumstances, in all probability, in 100 years.

This system of preserving timber has been in use on several railways, and other works, for several years past. A portion of the London and North-Western Railway, about 17 miles in length, has been laid with the creosoted sleepers from nine to 11 years, during which period the engineer reports that no instance has occurred in which any decay has been detected in them; and they continue quite as sound as when first put down. On the Stockton and Darlington Railway creosoted sleepers have also been laid for 10 years, and are found to continue without any appearance of change or decay; also, on the Lancashire and Yorkshire Railway creosoted timber has been used for five years, as paving-blocks, posts, &c.; the upper part becomes very hard, and the part underground appears as fresh as when taken out of the creosote-tank, though the timber was of inferior, sappy quality. In a trial commenced 12 years since, by Mr. Price, of Gloucester, of the comparative durability of timber in the covers of a melon-pit, where it was exposed constantly to the combined action of decomposing matter and the atmosphere, the unprepared timber became decayed in one year, and required replacing in a few years; a portion of the timber that had been Kyanised lasted well for about seven years, but then gradually, though very slowly, became quite decayed; but the timber that had been creosoted still continues as sound as when first put down, 12 years since. From these facts it appears not unreasonable to infer that, if timber be made to continue unchanged, and to show no symptom of decay for 10 or 12 years, under circumstances that reduce unprepared timber to dust in two years, and, in the absence of any proof to the contrary, we may expect to find that it will last an unlimited period, and that 100 years will be a moderate life to assign to it. And not only does this creosoting process render wood free from decay, but it also preserves it from the attacks of the teredo worm, when used for shipbuilding, harbours, docks, and other work contiguous to the sea.

This has been satisfactorily proved at Lowestoft harbour, where the plan has had a very extensive trial for four years; and the superintendent reports that there is no instance whatever of an uncreosoted pile being sound; they are all attacked by the limnoria and the teredo to a very great extent, and the piles in some instances are eaten through; but there is no instance whatever of a creosoted pile being touched, either by the teredo or the limnoria, and all the creosoted piles are quite sound, though covered with vegetation, which generally attracts the teredo. This extraordinary fact is to be accounted for by the creosote remaining intact in the timber, either wet or dry; and, being destructive to all animal life, is proof against the attack of these parasites; whereas, with the other processes, the metallic salts are washed out, or that portion which unites with and coagulates the albumen is rendered quite innocuous by the process. Several specimens exhibited proved that the ravages of the worm reduce the unprepared timber to a completely honeycombed state in two years; but the creosoted timber remains untouched after a period of four years.

There are two processes in use by Mr. Bethell for impregnating timber with creosote: one is by placing the wood in a strong iron cylinder, and exhausting the air from it by an air-pump, until a vacuum is created, equal to about 12 lb. on the square inch; the creosote is then allowed to flow into the cylinder, and afterwards a pressure is put upon the creosote, by a force-pump, equal to about 150 lb. on the square inch; the timber when taken out is fit for use.

The second process is by placing the timber in a drying-house, and passing the products of combustion through it; thereby not only drying the timber rapidly, but impregnating it, to a certain extent, with the volatile oily matter and creosote contained in the products given off from the fuel used to heat the house. When the timber is taken out of this house it is at once immersed in hot creosote in an open tank, thus avoiding the use of a steam-engine or pumps.

Specimens were exhibited of creosoted sleepers which had been in use for 10 years on the London and North-Western Railway; they were still perfectly sound and unchanged; also specimens of creosoted piles from Lowestoft harbour, which had been in the sea for four years, and continued quite fresh and sound, and without being touched by the worm; with specimens of similar piles uncreosoted, from the same situation, which were completely eaten away and honeycombed by the worm in the same period.

Mr. Bethell observed that, when he first commenced to preserve timber, he found that no pressure would get the creosote into the timber, from the presence of the moisture in the pores, and it became necessary to adopt the system of drying the timber first; and after 14 days he found that the wood lost 3 lb. in weight in every cubic foot; this was by the old process of drying. He then introduced the present drying-house, and in 12 or 14 hours they lost 8 lb. per cubic foot in Scotch sleepers, and these then absorbed an equal weight of creosote. An average of 11½ lb. of creosote per cubic foot was now put into all the Memel timber at Leith harbour works; it was forced in with a pressure of 180 lb. per inch. One piece of creosoted timber had been observed at Lowestoft, which had been half cut through for a mortice, but not filled up again, and a teredo had penetrated a little way into it at that part, and then attempted to turn to the right, and then to the left, and had ultimately quitted the timber without proceeding any further. Young wood was the most porous round the exterior, and consequently absorbed most creosote, which formed a shield to keep off the worm. The creosoted sleepers were better after eight or 10 years than when new, because the creosote got consolidated in them, and rendered them harder. He had taken the idea originally from the Egyptian mummy; it was exactly the same process; any animal put into a creosote tank assumed the appearance and became in like condition to a mummy. Timber creosoted was now chiefly used in railways, but he believed that if it was introduced into coal-pits it would be found that no timber so used in those places would rot.

Mr. Clift said he had taken up the subject in the present paper with the object of drawing attention to pit timber, and he was satisfied that, if the timber used in coal-pits were creosoted, it might, when done with in one situation, be again taken out to use in another place; whereas now, because the dry rot seized the timber so quickly, it was left behind in the workings of the pits.

Mr. Bethell, in answer to questions put by the chairman, said, that every piece of timber was weighed before it was put into the creosote tank, and again when taken out, and each piece was required to be increased in weight by the process 10 lb. per cubic foot; the quantity of oil used always rather exceeded the weight gained in the timber, on account of the loss of weight from the moisture extracted by the exhaustion of the air-pump. Oak only absorbed half as much creosote as Memel timber. Common fir creosoted would last double the time of hard wood creosoted, because it took more creosote. Beech made the best wood, being full of very minute pores, and they could force a greater quantity of creosote into the beech than into any other wood; consequently it took a more uniform colour throughout from the process. Long pieces of timber were found to require more time to saturate them in proportion to their length, and the creosote appeared to enter at the two ends, and be forced up through the whole length of the pores. The progress was known by the quantity of creosote forced into the tank after it was filled, according to the number of cubic feet of timber contained in the tank.

The Western Gas Company.—The half-yearly meeting of this company was held at the London Tavern, on the 4th inst., but, contrary to the practice on previous similar occasions, the press was refused admission. We understand, however, that Mr. Edge proposed the appointment of a committee to inquire into some charges affecting the general management of the company, which proposition was met by one expressing the confidence of the meeting in the present management, and, after a stormy discussion of three hours and a half, the amendment was carried, with only two dissentients.

Novel Application of Gutta Percha.—At Tynemouth, a case important to gas companies was heard before the borough magistrates. A small shopkeeper, named Hibberd, having failed in business, the Tynemouth Gas Company, which had supplied him with gas by meter, sent to fetch away the meter and to cut off the supply. They removed the meter, and broke off the piping within the shop, which extinguished a light there; but, to their surprise, they observed a light still continuing to burn in the back premises. They looked about them, and at last discovered that the gas burnt at that light was conveyed by a gutta percha tube from the company's pipe, to which it was attached. Upon further search, it was found that an upper room could be lighted by the same means, and that by an ingenious contrivance the gas could be turned from the meter, and the light in the front shop be furnished by the gas abstracted from the company's pipe. The men reported to the directors, who, upon discovering the cheat, charged Hibberd with felony. The bench, after considerable discussion, decided that the offence did not amount to felony, and dismissed the case. The company intends to proceed by indictment.

Share List.

THE PRICES QUOTED ARE THOSE AT WHICH THE LAST SALES HAVE BEEN MADE.

The Companies whose names are printed in italic type are incorporated by Act of Parliament.

Number of Shares issued.	Amount per Share	Name of Company.	Amount paid up per Share	Dividend per Cent. per Ann.	Price.
	£	**ENGLAND.**	£ s. d	£ s. d	£ s. d
		Aberdare			
		Aberystwith			
		Abingdon			
		Accrington £7000		5 0 0	
		Albrighton			
		Alcester			
		Alford, Lincolnsh.			
		Alfreton			
		Alnwick			
		Alston Moor			
250	10	Alton	10 0 0	5 0 0	10 0 0
800	5	Altrincham	5 0 0	6 0 0	
		Amlwch			
160	10	Ampthill	10 0 0	5 0 0	10 0 0
350	10	Andover	10 0 0	6 0 0	11 0 0
		Appleby			
		Arundel			
		Ashbourn, Derby			
		Ashburton			
		Ashby-de-la-Zouch			
		Ashford, Kent			
1600	25	*Ashton-under-Lyne*	25 0 0	10 0 0	52 0 0
		Atherstone			
		Axminster			
225	20	Aylesbury	20 0 0	5 0 0	21 0 0
		Aylsham, Norfolk			
		Bacup, Yorkshire			
		Bakewell			
		Baldock			
140	25	Banbury	25 0 0	10 0 0	50 0 0
		Bangor			
500	5	Barking, Essex	4 10 0	5 11 0	5 0 0
250	10	Barnard Castle	10 0 0	5 10 0	10 15 0
		Barnet			
		Barnsley £6000		7 10 0	
100	20	Barnstaple	20 0 0	7 10 0	25 0 0
		Barton			
120	25	Basingstoke	25 0 0	8 0 0	28 0 0
2400	20	*Bath*	16 0 0	6 0 0	25 to 30
		Battle £2000		6 0 0	
56	26½	Bawtry	26 10 0	5 0 0	25 0 0
		Beaumaris			
		Beccles, Bungay, and Lowestoft			
		Bedford			
		Bedworth			
		Belford			
		Bedale, Yorkshire			
		Belper			
		Beminster			
		Berkhempstead			
700	5½	Berwick-on-Tweed	5 10 0	6 8 0	5 15 0
		Beverley			
		Bewdley			
280	10	Bideford	10 0 0	6 0 0	10 10 0
		Biggleswade			
160	10	Bicester	10 0 0	5 0 0	10 0 0
		Bilston £15,100		8 0 0	
		Billericay			
		Bingley £7400		4 0 0	
		Birkenhead £70,000	35 0 0	3 0 0	35 to 37
2400	50	*Birmingham and Staffordshire*	50 0 0	10 0 0	93 to 94
	25	*Ditto*, new shares	7 10 0	10 0 0	12 0 0
928	75	*Birmingham*	75 0 0	10 0 0	148 0 0
		Bishop's Auckland			
		Bishop's Stortford			
		Blackburn £30,000		10 0 0	
		Blandford			
		Blythe			
		Bodmin			
		Bognor			
		Bolton £38,582		9 19 5	
		Boroughbridge			
		Boston £8000		10 0 0	
200	10	Bourn	10 0 0	5 0 0	
		Brackley			
		Bradford, Wilts			
		Bradford, Yorksh. £45,000		9 10 0	
		Brampton, Cumb.			
		Brandon, Suffolk			
		Brecon			
		Bridge-end, Glam.			
		Brierly Hill			
2250	20	*Brighton*	20 0 0	5 0 0	14 to 15
1125	20	,, new shares	16 0 0	5 0 0	
		Brighton and Hove £50,276			
4250	20	*Bristol*	20 0 0	9 0 0	37 0 0
1725	25	*Bristol and Clifton*	25 0 0	6 0 0	25 0 0
		Brixham			
		Braintree			
750	50	*Brentford*	50 0 0	6 0 0	44 to 46
800	25	,, new shares	11 0 0	6 0 0	11 0 0
		Brentwood			
		Bridgwater £6000		5 0 0	
400	10	Bridlington	10 0 0	5 0 0	10 0 0
		Bridport			
		Brigg			
		Broadstairs			
100	50	Bromley, Kent	50 0 0	6 0 0	52 10 0
		Bromsgrove			
		Broughton			
120	10	Bruton	10 0 0	4 0 0	8 0 0
100	25	Buckingham	25 0 0	5 0 0	25 0 0
		Bungay (see Becls.)			
		Burford			
		Burnley £19,946		4 10 2	
		Burslem&Tunstall			
		Burton-on-Trent			
		Bury, Lanc. £6570			
		Bury St. Edmund's		5 0 0	
		Buxton			
		Callington			
		Calne, Wilts			
		Camborne			
		Cambridge £31,560		9 0 0	
240	50	*Canterbury*	50 0 0	6 0 0	
240	25	*Ditto*, second issue	25 0 0	6 0 0	57 to 58
		Cardiff £12,000		7 10 0	28 to 29
		Carmarthen			
		Castleford			
		Chapel on the Frith			
		Chard			
		Chatham (see Roch.			
		Chatteris			
		Cheadle			
		Chelmsford			
		Cheltenham £18,732		8 10 0	
		Chepstow			
		Chertsey			
230	10	Chesham, Bucks	10 0 0		
		Chester			
		Chester-le-Street			
		Chesterfield £13,123		4 17 6	
240	25	Chichester	25 0 0	6 0 0	30 0 0
		Chippenham			
		Chipping Norton			
		Chirk			
		Chorley			
		Chudleigh			
		Cirencester			
		Clifton (Bristol and			
		Cleckheaton, York.			
		Clitheroe			
		Cockermouth			
		Colchester			
		Collumpton			
		Colne, Lancashire			
		Coleford, Gloucest.			
		Coggeshall			
		Congleton £5000		5 0 0	
		Cookstown			
		Cowbridge			
		Corsham			
800	25	*Coventry*	25 0 0	6 0 0	24 to 25
		Cowes			
		Crewkerne			
		Croydon £20,000		5 0 0	
		Cranbrook £1900		5 0 0	
		Crayford			
		Crediton			
		Crewe, Cheshire			
		Cricklade			
		Darlaston			
		Darlington			
250	20	Dartford	20 0 0	7 10 0	27 0 0
		Dartmouth			
125	20	Daventry	20 0 0	6 0 0	24 8 0
		Dawley, Salop			
		Dawlish			
		Dedington			
500	6	Denbigh	6 0 0	5 0 0	6 0 0
820	10	Deptford	10 0 0	5 0 0	4 10 0
325	50	*Derby*	50 0 0	10 0 0	
90	20	Dereham (East)	20 0 0	4 10 0	
1000	5	*Dewsbury*	5 0 0	10 0 0	8 12 6
		Devizes			
4000	5	*Devonport*	5 0 0	6 0 0	6 5 0
		Doncaster			
280	25	Dorchester	25 0 0	5 0 0	30 0 0
120	25	Dorking	20 10 0	5 0 0	21 10 0
		Douglas, Isle of M.			
209	56½	*Dover*	56 10 0	4 15 4	55 0 0
		Downham			
		Driffield			
		Droitwich			
600	20	*Dudley*	20 0 0	4 0 0	15 to 16
		Droylsden			
		Dunmow			
		Dunstable			
		Durham			
276	9	Dursley, Gloster	9 0 0	5 10 0	8 0 0
		Eastbourne			
		East Grinstead			
		Elland			
		Ellesmere			
		Enfield			
300	19	Epsom and Ewell	19 0 0		
		Evesham			
		Exeter £40,000		10 0 0	
		Exmouth			
		Eye, Suffolk			
64	25	Fakenham	25 0 0	5 0 0	25 0 0
		Falmouth			
		Fareham			
120	25	Farnham	25 0 0	10 0 0	42 0 0
		Farringdon			
		Faversham			
		Ferrybridge			
		Fleetwood			
300	10	Folkestone	10 0 0	10 0 0	15 0 0
240	10	,, new shares	8 0 0	10 0 0	13 0 0
		Fowey			
240	5	Framlingham	5 0 0	5 0 0	5 0 0
		Frome			
		Garstang			
		Gillingham, Dorset			
		Glastonbury			
		Glossop £10,000		9 0 0	
1000	25	*Gloucester*	25 0 0	7 10 0	28 0 0
		Gomersal			
		Godalming			
		Gosport			
		Grantham			
20		Gravesend	20 0 0	5 0 0	21 0 0
1000	10	*Great Grimsby*	8 0 0	8 0 0	10½ to 11
1000	25	Guildford	25 0 0	4 0 0	20 0 0
		Guisborough			
		Hadleigh			
		Hales Owen			
300	6	Halesworth	6 0 0	7 10 0	5 10 0
		Halifax £15,000		10 0 0	
		Halstead			
		Hampton Court			
		Harrogate £10,000		5 0 0	
		Hartlepool £15,137		7 10 0	
		Haslingden, Lansh.			
330	50	Hastings and St. L.	50 0 0	6 0 0	60 0 0
		Haverfordwest			
		Haverhill			
		Haworth, Yorks.			
		Hayle			
		Helstone			
		Hemel Hempstead			
300	10	Henley-on-Thams.	10 0 0		
		Hereford £5300		4 0 0	
		Herne Bay			
270	10	Hexham	10 0 0	7 0 0	12 0 0
		Heywood £10,000		5 0 0	
		Highworth (Wilts)			
230	10	Hinckley	10 0 0	5 0 0	7 0 0
		Hindley, Lancash.			
		Hitchen			
		Hythe			
		Hoddesden			
		Holbeach			
		Holmfirth £8880		3 10 0	
		Holyhead			
		Holywell (see British Provincial)			
		Honiton			
		Horncastle			
	10	Houghton-le-Sprg.	10 0 0	8 0 0	
		Horsham			
		Howden			
		Hull, Sculcoats (see British Provin.)			
		Hull, £11,712. 10s.		5 0 0	
		Hunmanby			
210	10	Hungerford	10 0 0	5 0 0	10 0 0
		Huddersfield			
520	5	High Wycombe	5 0 0	6 0 0	5 0 0
		Ilminster			
		Ilford			
		Ilfracombe			
		Ironbridge			
1400	10	*Ipswich*	10 0 0	8 0 0	15 0 0
1400	10	,, new shares	7 10 0	8 0 0	
800	25	*Isle of Thanet*	20 0 0	5 0 0	20 to 21
		Kendal £9100		8 15 0	
		Kenilworth			
		Keswick			
100	25	Kettering	25 0 0	5 0 0	25 0 0
		Kiddermins. £10000		5 0 0	
		King's Langley			
		Kington, Hereford			
		Kirkby Lonsdale			
		Kirkham, Lanc.			
		Knutsford			
		Lancaster			
		Llanelly £3000		5 0 0	
		Llandovery			
		Leamington Priors £22,500		6 0 0	
		Leatherhead			
		Ledbury			
		Leeds Old Comp. old stk., £60,300		10 0 0	
		new ,, £23,775		6 0 0	
		Leeds New £60,000		10 0 0	
		Leek			
		Leicester £35,230		7 0 0	
		Leigh			
125	20	Leighton Buzzard	20 0	5 0 0	
		Leominster			
		Leyburn, Yorksh.			
		Liskeard			
330	25	Lewes	25 0 0	5 0 0	23 0 0
		Lincoln £8000		10 0 0	
		Leyland, Lancash.			
		Littlehampton			
250	20	Lichfield	20 0 0	10 0 0	30 0 0
		Liverpool United	100 0 0	9 0 0	186 to 188
		,, ¼ sh.	25 0 0	9 0 0	46½ to 47
		Langport			
5000	40	London Comps.— *British*	18 0 0	1 18 10	
		,, debentures £46,300		4 0 0	
5000	20	,, Provincial— (Holywell, Hull, Norwich, Potteries, Trowbridge)	20 0 0	7 0 0	17 to 19
	20	,, Prov., new	10 0 0	7 0 0	7 to 9
	25	*Commercial*	25 0 0	6 0 0	25 to 26
	25	,, new shares	15 0 0	6 0 0	partoldis
	25	,, ,,	2 10 0	6 0 0	partoldis
12,000	50	*Chartered*	50 0 0	5 0 0	40 to 42
6000	50	,, new shares	10 0 0	5 0 0	8 to 9
2000	150	*City of London*	150 0 0	4 0 0	125 to 130
4000	50	*Equitable*	50 0 0	2 10 0	26 to 27
		,, debentures £46,000			
10,000	20	European— (Amiens, Boulogne, Caen, Havre, Nantes, and Rouen)	20 0 0	5 0 0	10 to 12
		,, do. new	7 0 0	5 0 0	5 to 7

Number of Shares issued.	Amount per Shar	Name of Company.	Amount paid up per Share	Dividend per Cent. per Ann.	Price.
	£		£ s. d	£ s. d	£ s. d
15,000	10	*Gt.Cntl.Consumers*	10 0 0	5 0 0	10 to 12
8000	50	*Impl.Continental* —(Amsterdam, Aix-la-Chapelle Antwerp, Berlin, Bordeaux, Brussels, Cologne, Frankft., Ghent, Haarlem Hanover, Lille, Marseilles, Rotterdam, Toulouse, Vienna)	42 0 0	5 19 0	41 to 43
7000	50	„ new shares	41 0 0	9 15 0	60 to 65
	50	„ third issue	43 10 0	8 16 0	55 to 60
10,000	50	*Imperial*	50 0 0	6 0 0	68 to 69
3000	50	„ new shares	40 0 0	6 0 0	55 to 57
		„ debentures £50,500			
4000	40	*Independent*	40 0 0	6 0 0	46 to 47
3000	50	*London*	50 0 0		5 to 7
6000	25	„ preference	10 0 0	6 0 0	10 0 0
3000	50	„ 2nd do.	50 0 0		15 to 18
9000	50	*Phœnix*	49 0 0	4 10 0	26 to 27
1600	100	*Ratcliff*	90 0 0	5 0 0	60 to 65
4000	25	*South Metrop.*	25 0 0	6 0 0	22 to 23
		Surrey Consumers'			
9000	50	UnitedGeneral— (Cork, Dublin, Limerick)	50 0 0	2 0 0	16 to 17
12,500	20	Western	19 0 0		7 0 0
		Lostwithiel			
		Loughborough			
240	25	*Louth*	25 0 0	6 0 0	26 10 0
		Lowestoft (see Bec.			
611	5	Ludlow Union	5 0 0	6 0 0	5 0 0
		Luton			
		Lutterworth			
		Lyme Regis			
		Lymington			
		Malmesbury			
		*Macclesfield*32,000		3 15 0	
		Maidenhead			
300	50	*Maidstone*	50 0 0	10 0 0	90 0 0
		Maldon			
		Marlborough			
		Malton (New)			
		Malvern			
		Manningtree			
		Mansfield £5000		10 0 0	
		March			
		Margate(see I. of T.			
		Market Deeping			
		Market Drayton			
132	25	Market Harboro'	25 0 0	6 0 0	30 0 0
		Market Raisin			
		Market Weighton			
		Marlow			
370	10	Maryport	10 0 0	6 0 0	12 0 0
		Melksham			
		Melton Mowbray			
		Merthyr Tydvil			
		Mere			
		Middleton £9030		5 0 0	
		Midsummer Norton			
		Middlesboro'			
		Mildenhall			
		Mitcham			
		Mold			
700	10	Monmouth	10 0 0	5 0 0	
		Monk Wearmouth			
		Moreton in Marsh			
		Morley			
		Mottram			
		Nantwich			
		Neath			
		Needham Market			
		Newark £5000		10 0 0	
250	20	Newbury	20 0 0	5 0 0	20 0 0
13,000	5	Newcastle & Gateshead Union	5 0 0	8 0 0	8 0 0
		Newcastle-under-Lyne £6200		4 0 0	
600	5	Newmarket	5 0 0	6 0 0	5 0 0
		Newnham, Glost.			
		Newent			
		New Mills £2115			
		Newport, M. £11720		8 0 0	
320	50	*Newport, Isle of W.*	38 0 0	4 0 0	19 to 20
		Newport Pagnell			
		Newport, Salop			
		Newton Abbot			
		Newton, Lanc.			
		Northallerton			
		North Walsham			
512	20	*Northampton*	18 0 0	10 0 0	27 0 0
		Northfleet			
		Northwich			
		Norwich (see British Pro. £40,000		7 0 0	
900	50	*Nottingham*	50 0 0	10 0 0	
900	50	New shares		10 0 0	
		Nuneaton			
		Oakham			
		Oakhampton			
200	10	Odiham, Hants	10 0 0	3 10 0	10 0 0
		Oldham			
		Olney			
		Ongar			
		Ormskirk			
		Otley, Yorkshire			
		Oundle			
150	120	*Oxford*	120	8 0 0	260
		Over Darwen £8000		5 0 0	
		Padstow			
		Pately Bridge, Yrk.			
250	20	Penrith	15 0 0	6 10 0	21 0 0
		Penryn			
		Penzance			
200	10	Petworth	10 0 0	8 0 0	12 0 0
		Petersfield			
		Pickering			
3000	10	*Plymouth*	10 0 0	6 0 0	11 0 0
		Pocklington			
		Pontefract			
		Pontypridd			
400	10	Poole	10 0 0	5 0 0	10 0 0
		Port Madoc			
600	50	*Portsea Island*	53 0 0	5 0 0	45 to 47
400	10	Prescott	9 0 0	4 13 4	7 0 0
		Preston £52,500		10 0 0	
		Pwllheli			
		Pudsey £12,000		5 0 0	
		Radcliff and Pilkington £9000		4 12 10	
		Ramsay, I. of Man			
		Ramsgate (see Isle of Thanet)			
		Ravenglass			
1000	10	*Reading*	10 0 0	3 0 0	7 0 0
500	20	*Reading Union*	20 0 0	6 0 0	17 0 0
		Redditch			
		Redruth			
		Reigate			
		Retford (East)			
		Rhyl			
		Richmond (Surrey)			
		Ripon			
		Rochester and Chatham £20,000		6 0 0	
		Rochford			
		Rockingham			
		Romford			
		Ross			
245	25	*Rotherham*	25 0 0	6 0 0	40 10 0
		Royston			
		Ruabon			
		Rugby			
		Rugeley			
		Runcorn £11,000		7 10 0	
		Ruthin			
500	10	Ryde	10 0 0	6 0 0	12 0 0
		Rye			
		Romsey			
		Saddleworth			
225	20	Saffron Walden	20 0 0	3 15 0	19 0 0
		St. Austel			
		St. Asaph			
		St. Colomb			
		St. Helen's £7500		7 10 0	
		St. Helier's (Jersey)			
		St. Ives, Hunting.			
		St. Ives, Cornwall			
250	10	St. Neot's	10 0 0	8 0 0	12 0 0
		St. Peter's Port, (Guernsey)			
320	25	Salisbury	25 0 0	6 0 0	28 to 30
		Sandbach			
140	10	Saxmundham	10 0 0	5 0 0	10 0 0
		Scarborough			
		Seaham Harbour			
		Sedburgh			
		Selby			
		Settle			
290	10	Sevenoaks	10 0 0	5 0 0	10 0 0
		Shaftesbury			
5400	25	*Sheffield United*	24 0 0	8 6 8	35 0 0
		Shelton, Potteries (see Brit Prov.)			
		Shepton Mallet			
		Sherborne			
2914	5	Shields: Tynemth.	5 0 0	3 0 0	5 0 0
		Shields (South)			
		Shiffnal, Salop			
1000	5	*Shipley*	5 0 0	6 0 0	5 13 6
		Shipston-on-Stour			
		Shorcham			
		Shrewsbury £10,000		7 0 0	
400	10	Skipton	10 0 0	4 0 0	11 0 0
		Sleaford			
250	10	Slough	10 0 0		
		Snaith			
		Soham			
		Southwold			
		South Molton			
1000	50	*Southampton*	32 0 0	5 0 0	
		Sowerby, Yorksh.			
		Stretford			
		Stokesly			
		Stafford £10,000		5 0 0	
		Staines and Egham			
		Staley Bdg. £15,000		10 0 0	
		Stamford £11,250		3 0 0	
		Stockton-on-Tees £7980		9 5 0	
840	9½	Stockton, New	9 10 0	9 0 0	8 0 0
960	10	Stoke-upon-Trent	10 0 0	5 10 0	10 0 0
500	10	„ new shares	4 0 0	5 10 0	10 0 0
		Stone, Stafford			
		Stoney Stratford			
		Stourbridge			
		Stowmarket			
150	20	Stratford-on-Avon	20 0 0	7 10 0	30 0 0
		Stroud			
169	10	Swaffham	10 0 0	5 0 0	5 10 0
		Swansea £9000			
		Sudbury			
		Sunderland, old			
6400	5	*Sunderland*, new	5 0 0		
		Sutton			
		Swindon			
		Sydenham			
2800	5	*Taunton*	5 0 0	None	2 10 0
		Tadcaster			
		Tamworth			
		Tavistock			
		Teignmouth			
		Tenbury			
		Tenby			
		Tenterden £2000		2 10 0	
		Tetbury, Gloster			
		Tewkesbury			
		Thame			
		Thetford			
		Thirsk			
		Thornbury			
		Thorne			
		Tiverton			
670	5	Todmorden	3 0 6		
		Torquay			
		Torrington, Devon			
		Totnes			
		Totnes and Bridgetown Consumers			
4000	5	Tottenham	3 10 0	6 0 0	3 0 0
		Towcester			
200	10	Tring	10 0 0	5 0 0	10 0 0
		Trowbridge (see British Provin.)			
75	50	Truro	50 0 0	2 0 0	
		Tunbridge			
		Tunbridge Wells			
		Ulverston			
		Uppingham			
240	5	Upton-on-Severn	5 0 0	5 0 0	5 0 0
		Usk, Monmouth			
		Uttoxeter			
		Uxbridge			
1000	25	*Wakefield*, old capl	25 0 0	6 0 0	25 0 0
1600	5	„ new „	5 0 0	6 0 0	5 0 0
300	10	Wallingford	10 0 0	5 0 0	8 0 0
		Wandsworth			
		Wantage		10 0 0	
		Warrington £23304		3 10 0	
100	10	Wareham	10 0 0	5 0 0	8 0 0
120	25	Warminster	25 0 0		27 0 0
		Warth			
		Warwick £15,000		6 0 0	
		Watford			
		Welchpool, Mntgy.			
		Wellingborough			
		Wellington, Salop			
		Wellington, Smrst.			
		Wells, Smrst. £5000		7 10 0	
		Westbury			
		Weston-sup.-Mare			
2000	5	West Ham	5 0 0	6 0 0	5 0 0
		Whitby			
		Whitehaven			
		Whitstable			
		Whittlesea			
		Wigan £10,160		10 6 0	
		Willenhall			
		Winchelsea			
		Winslow			
240	10	Wimborne Minster	10 0 0		
		Wincanton			
360	50	Winchester	50 0 0	6 0 0	
900	12½	Windsor	12 10 0	10 0 0	23 0 0
		Witham			
		Witney			
4448	10	*Wolverhampton*	10 0 0	7 0 0	15 0 0
		Woburn			
210	10	Wokingham	10 0 0		10 0 0
		Woodbridge			
		Wooler			
		Wotton-un.-Edge			
		Worcester £29,000		8 0 0	
		Workington			
		Worksop and Radford			
		Wirksworth			
		Worthing			
		Wrexham			
		Woolwich			
		Woolwich Consms.			
		Woolwich (North)			
		Wymondham			
		Yarm			
795	20	Yarmouth	20 0 0		15½ to 16½
		Yeadon, near Leeds			
		Yeovil			
		York Untd. £55,000		7 0 0	
		SCOTLAND.			
	5	Aberdeen	3 0 0		3 16 6
		Airdrie			
		Alloa			
		Annan			
		Anstruther			
		Ardrossan			
550	20	Arbroath	20 0 0	7 10 0	27 10 0
		Auchterarder			
750	2	Auchtermuchty	2 0 0	6 0 0	2 10 0
		Ayr, old			
		Ditto, new			
		Banff			
		Barrhead			
		Bathgate			
		Beith			
		Bervie			
		Biggar			
		Blairgowrie			
400	6	Borrowstowness	6 0 0	5 0 0	8 0 0
		Brechin			
		Bridge of Allan			
2		Broughty Ferry	2 0 0	5 0 0	2 0 0
		Burntisland			
		Callen			
		Campbelton			
		Clackmannan			
		Coatbridge			
		Coldstream			
		Collinsburgh			
		Crieff			
		Crail, Fife			
		Cumbernauld			
		Cumnock			
600	5	Cupar Angus	5 0 0	6 0 0	5 10 0
250	10	Cupar Fife	10 0 0	7 10 0	14 0 0
		Dalkeith			
		Dingwall			
		Dornoch			
		Douglas			
		Dumbarton			
400	20	Dumfries	14 0 0	5 0 0	20 0 0
		Dunbar			
		Dunblane			
23½		*Dundee*, old £29,687	23 15 0	8 8 0	30 10 0

Number of Shares issued.	Amount per Share	Name of Company.	Amount paid up per Share	Dividend per Cent. per Ann.	Price.
	£		£ s. d	£ s. d	£ s. d
	5	*Dundee*, nw £33,851	5 0 0	2 10 0	4 0 0
860	10	Dunfermline	10 0 0	6 0 0	12 12 0
		Dunkeld			
		Dunse			
		Dysart			
6000	25	*Edinburgh Gas Co.*	25 0 0	10 0 0	52 10 0
	25	*„ and Leith Co.* £98,640	18 0 0	7 10 0	27 13 6
		Elie			
		Elgin			
		Falkirk, old			
		„ new			
		Falkland			
		Ferry Port on Craig			
		Fochabers			
		Forfar			
		Fort William			
		Fraserburgh			
		Galashiels			
		Garlieston			
		Gatehouse n. Fleet			
		Girvan			
	25	*Glasgow* £132,500	25 0 0	10 0 0	50 0 0
15000	10	*Glasgow City and Suburban*	9 0 0	7 15 0	15 12 0
		Grangemouth			
		Grahamston			
		Haddington			
		Hamilton £7500		8 0 0	
		Hawick			
		Helensburgh			
		Huntly			
		Inverary			
400	1	Inverkeithing	1 0 0	5 0 0	1 0 0
1200	10	*Inverness Gas and Water*	10 0 0	5 10 0	15 0 0
2400	5	„ new shares	1 5 0	5 10 0	2 5 0
		Irvine			
		Jedburgh			
		Johnstone, near Paisley			
		Keith			
		Kelso			
		Kilmarnock			
		Kincardine			
		Kinghorn			
		Kingskittlo, Fife			
		Kinross			
		Kirkaldy			
320	5	Kirkcudbright	5 0 0	5 0 0	5 0 0
1000	3	Kirkintulloch, near Glasgow	3 0 0	5 0 0	3 0 0
227	5	Kirkwall	5 0 0	5 0 0	4 10 0
518	5	Kirriemuir	5 0 0	6 0 0	
		Lanark			
		Largo, near Leven			
		Largs			
		Lasswade, n. Edin.			
		Lauder			
		Leith			
		Leslie, Fife			
		Lesmahago			
		Leven			
		Liulithgow			
		Linton, n. Noblch.			
		Lochee, n. Dundee			
		Lochgilphead			
		Lochwinnock, near Paisley			
1200	1	Markinch	1 0 0	7 10 0	1 5 0
		Mauchline			
		Maxwell-town, n. Dumfries			
		Maybole, Ayrshire			
		Maryhill, near Glasgow			
		Melrose			
718	2	Mid & East Calder	2 0 0		2 0 0
192	5	Moffat	5 0 0		
	13½	Montrose	13 10 0	7 11 1	
		Musselburgh			
		Nairn			
		Neilston, n. Glasg.			
		Newmills, near Kilmarnock			
		Newburgh, Fife			
		Newton-on-Aye			
		Newton Stewart			
		North Berwick, n. Haddington			
		North Queensferry			
		Oban			
		Peebles			
800	25	Perth	25 0 0	4 16 0	22 10 0
	5	„ new	5 0 0		1 17 6
		Peterhead			
		Pittenweem			
		Pollokshaws, near Glasgow			
		Port Glasgow			
		Portobello, n. Edin.			
		Prestonpans			
		Rutherglen, near Glasgow			
		Renfrew, n. Paisley			
		Saltcoats			
		Sanquhar			
		Selkirk			
		South Queensferry			
		St. Andrew's			
		Stewarton			
		Stirling			
		Stoneheavn			
		Stonhouse, Lanrks.			
		Stornoway			
		Stranraer			
		Strathaven, near Hamilton			
		Thurso			
		Tillicoultry, n. Alloa			
800	1	Tranent	1 0 0		1 0 0
		Troon			
		Wick			
		Wigton			
		Wemyss	4 10 0		

IRELAND.

Number of Shares issued.	Amount per Share	Name of Company.	Amount paid up per Share	Dividend per Cent. per Ann.	Price.
	£		£ s. d	£ s. d	£ s. d
300	10	Armagh	10 0 0	8 0	14 10 0
		Ballinasloe			
700	50	*Belfast*	50 0 0		
		Ballymena			
		Ballymoney			
		Carrickfergus			
		Carlow, new			
		Cork (see Un. Gen.)			
1300	5	Clonmel Consumrs	5 0 0	5 0 0	5 0 0
		Drogheda			
19,000	10	*Dublin Consumers*	5 0 0	7 0 0	6 0 0
		Dublin Hibernian (see United Gen.)			
160	25	Dundalk	25 0 0		22 0 0
		Dungannon			
871	5	*Downpatrick*	5 0 0	4 0 0	
		Enniskillen			
		Galway			
400	10	Kilkenny	10 0 0	8 0 0	11 5 0
		Larne			
		Limerick (see U.G.)			
1725	5	Limerick Consum.	5 0 0	5 0 0	5 0 0
600	15	Londonderry	15 0 0	6 13 4	21 10 0
500	7	Lisburn	7 0 0	7 10 0	7 0 0
520	10	Lurgan	6 0 0	6 0 0	6 0 0
		Mallow			
		Monaghan			
		Nenagh			
448	5	Newtownards	5 0 0	4 0 0	5 0 0
		New Ross			
		Newry			
		Omagh			
125	20	Portadown	20 0 0	6 0 0	20 0 0
600	10	Sligo	10 0 0		
		Tipperary			
		Tralee			
		Waterford			
		Wexford			

The Gas Works in the undermentioned towns belong to private individuals:—

Abergavenny.	Ely.	Hertford.	Morpeth.	Sheerness.	Ware. (2 works)
Bridgenorth.	Farsley.	Holt.	Oswestry.	Sidmouth.	Wem.
Carlow, old.	Gainsborough.	Huntingdon.	Peterborough.	Sittingbourne.	Weymouth.
Carnarvon.	Goole.	Hyde (Cheshire)	Pontypool.	Spalding.	Whitchurch (Salop).
Deal.	Harleston.	Kingston-on-Thames.	St. Alban's.	Waltham Abbey.	Wisbeach.
Diss.	Hatfield.	Lynn.	Sandwich.		

The Gas Works belong to the Corporations, or to Commissioners acting under special acts of Parliament, in the following towns:—

Carlisle.	Keighly.	Milton (Kent).	Rothesay.	Southport (Lanc.)	Walsall.
Cashel.	Knaresborough.	Paisley.	Richmond (Yorkshire).	Stockport	Wells (Norfolk).
Coleraine.	Lytham (Lanc.)	Rochdale.	Salford.	Strabane.	Youghall.
Greenock.	Manchester.				

Price Current.

The following List of Prices is corrected by an eminent wholesale house in each trade up to the latest period:—

CASTINGS, per Ton.

Average Weight of Cast Iron Gas Pipes, per Yard.

1½ in.	2 in.	2½ in.	3 in.	4 in.	5 in.	6 in.	7 in.	8 in.	9 in.	10 in.	12 in.
16	21	28	33	51	70	89	107	136	149	177	208 lbs.

Retail Prices are 5 to 10 per cent. higher.	London.	Glasgow	Newcastle.	Wales.	Yorksh., Derbysh., and Staffrdsh.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Pig Iron, No. 1	3 7 6	2 5 0	3 0 0	3 15 0	3 10 0
1¼ and 2 inches Socket Pipes	6 0 0	5 0 0	5 10 0	5 15 0	5 15 0
2½ and 3 do. do.	5 17 6	4 15 0	5 7 6	5 12 6	5 12 6
4 and 5 do. do.	5 15 0	4 12 6	5 5 0	5 10 0	5 10 0
6 inches and upwards do.	5 12 6	4 10 0	5 2 6	5 7 6	5 7 6
Extra for bends, branches, and connection	2 0 0	2 0 0	2 0 0	2 0 0	2 0 0
Retorts, 1st fusion	5 5 0	..	..	4 17 6	5 0 0
Do. 2nd fusion	5 15 0	4 10 0	4 17 6	5 5 0	5 5 0
Tank Plates, ⅜ thick and above	5 10 0	4 17 6	5 5 0	5 7 6	5 17 6
Do. less than ⅜	5 15 0	5 0 0	5 0 0	..	5 10 0
Plain Castings ex. models	5 15 0	5 0 0	5 0 0	5 10 0	5 10 0

COALS.

NEWCASTLE. Unscreened.	s.	d.	
Burnhope	5	3	per ton.
Ravensworth Pelaw	5	9	„
Dean's Primrose			
Pelton			
Brancepeth	6	0	„
Medomsley			
Pelaw	6	3	„
Eighton Moor			
Felling Main			
New Felton			
Peareth	6	6	„
South Pelaw			
Waldridge			
Washington Hutton			
South Peareth			
Ramsay's Cannel	12	0	„
Cowen's Cannel	12	0	„

DERBYSHIRE. Unscreened.	s.	d.	
Clay Cross, Deep Main, and New Birchwood	6	6	per ton.
SCOTCH CANNEL.			
Boghead	19	0	„
Kirkness best	23	0	„
Capeldrae, first quality	20	0	„
Ditto, second quality	10	0	„
Lothian	18	0	„
Lesmahago at Glasgow	16	6	„
Ditto at Leith	18	0	„
Arniston	16	0	„
Wemyss	15	0	„
Donibristle	10	6	„
Bridgeness	11	0	„
Kinneil			
Lochgelly	9	6	„
Lumphinan			

FIRE GOODS.	LEAD.
Best Bricks, 50s. per 1000, at Newcastle.	Soft pig, £18. 10s. per ton.
Do. Clay, 12s. per ton do.	

WROUGHT IRON TUBING, subject to 40 per cent. Discount.

	2 inches.	1¼ inch.	1¼ inch.	1 inch.	¾ inch.	½ inch.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Patent welded tubes, from 2 to 12 feet, per foot	1 8	1 0	0 10	0 7	0 5	0 4½
Ditto „ 6 in. to 18 in., each	3 0	2 0	1 9	1 3	1 0	0 9
Connecting pieces, or long screws	3 6	2 3	2 0	1 6	1 2	0 11
Bends, springs, and elbows, wrought iron	3 9	2 3	1 9	1 0	0 10	0 8
Tees, wrought or cast	4 0	2 6	2 0	1 6	1 1	0 10
Crosses, wrought or cast	4 6	3 0	2 6	2 0	1 6	1 2
Iron cocks	17 6	9 6	7 6	4 6	3 3	2 6
Ditto, with brass plug	28 0	16 0	13 0	7 0	5 6	4 6
Diminishing sockets, caps, plugs, and nipples	1 3	0 9	0 8	0 6	0 5	0 4
Plain sockets	1 0	0 8	0 7	0 5	0 4	0 3
Flanches	1 9	1 6	1 3	1 0	0 9	
Syphons, 2 quart	15 0	14 0	13 6	13 0	12 0	
Ditto 1 quart	11 6	10 6	10 3	10 0	9 6	

FREIGHTS, per Ton.

Coastwise—Newcastle.	s.	d.
Chatham & Roches.	7	6
Cork	9	0
Dover	8	0
Dublin	9	0
Exeter Quay	9	6
Folkestone	8	0
Hastings	8	6
Ipswich	6	6
Jersey	9	3
London	7	9
Lowestoft	6	0
Lynn	7	0
Margate	8	0
Portsmouth	9	9
Plymouth	8	3
Southampton	9	9
Weymouth	9	6
Yarmouth	6	0
Foreign.		
Amsterdam	10	0
Boulogne	9	0
Barcelona	15	0
Bordeaux	10	0
Calais	9	0
Dieppe	9	3
Hamburg	9	6
Havre	10	6
Lisbon	11	0
Rotterdam	9	0
Rouen	12	0
St. Petersburgh	11	6
Stettin	8	0
Trieste and Venice	18	3